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Report
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Species List

of Alaskan Birds, Mammals, Fish, Amphibians, Reptiles, and Invertebrates



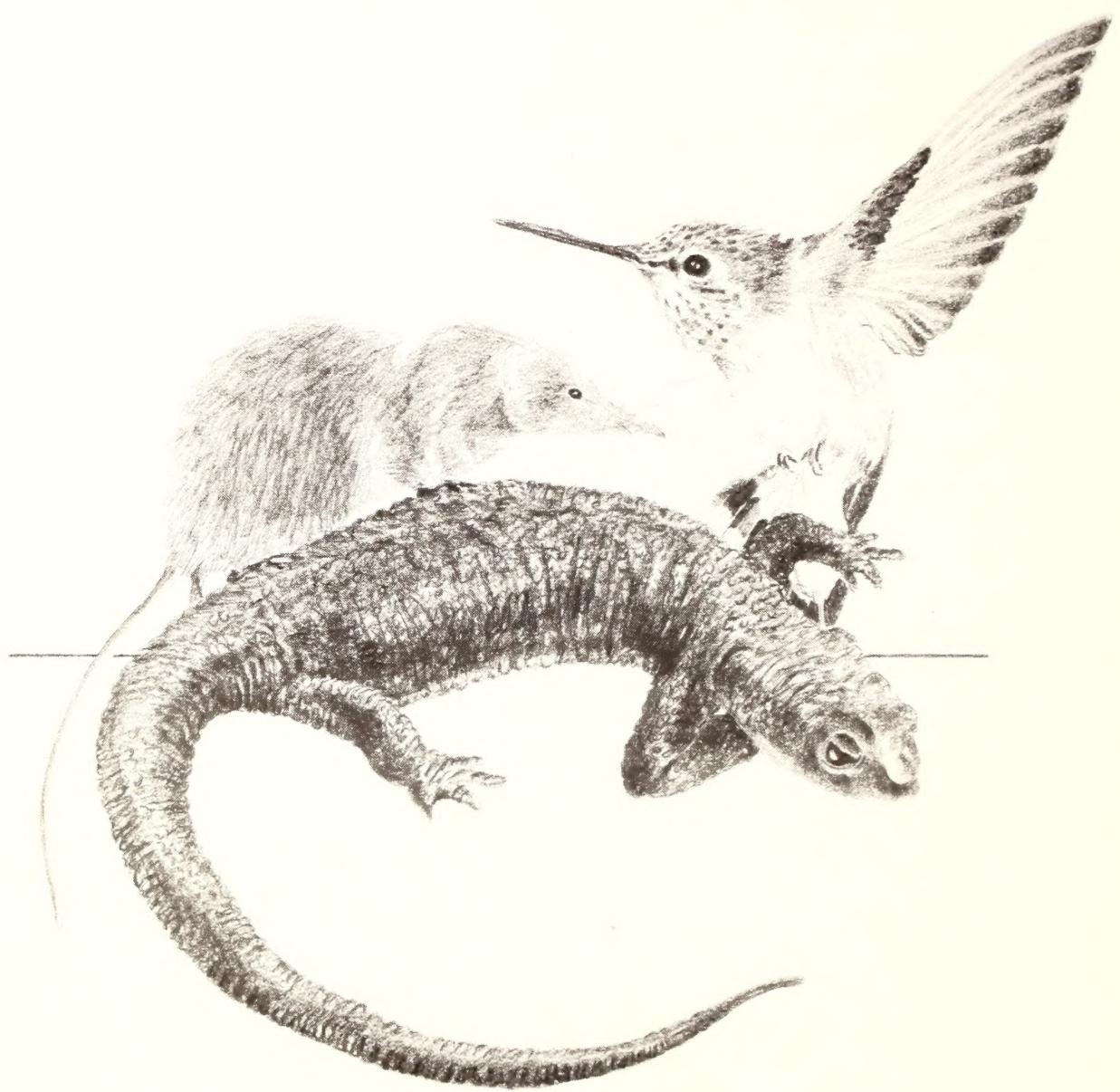
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Alaska Region, Report 82 — Tamra Taylor species list

Species List of Alaskan Birds, Mammals, Freshwater and Anadromous Fish, Amphibians, Reptiles, and Commercially Important Invertebrates, by Tamra Faris Taylor. U.S. Department of Agriculture, Forest Service, Alaska Region, Wildlife and Fisheries Management Division (P.O. Box 1628, Juneau, Alaska 99802). November 1979, Alaska Region report number 82.

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Introduction

The Alaska Region of the Forest Service was assigned the task of assembling wildlife population supply, demand and habitat data by the Resource Planning Act (PL 93-378) of 1974, as amended by the National Forest Management Act (PL 94-588). This task was accomplished primarily in 1978 under the title "RPA Assessment of Wildlife and (Freshwater) Fish." Preparatory to that, the USDA Forest Service printed my "Species List of Alaskan Birds, Mammals, Fish, Amphibians and Reptiles" as an administrative report, dated August 1977. In the process of collecting data for the Assessment it was possible to greatly refine the original species list into one reflecting species occurrence by sub-regions within the State of Alaska and by ecosystem types throughout the State. Also incorporated into this new list are the whales and commercially important invertebrates. This Species List can be used as a checklist to indicate generally what species occur where and how numerously. The list is complete for amphibians, reptiles, birds and mammals. The fish list is limited to anadromous and freshwater species and a few marine species that frequently enter freshwaters. The many strictly marine fish species have been excluded. The same is true of the invertebrate list which covers only presently commercial species and a few species that may be commercially harvested in the near future. The list includes a total of 389 birds, 104 mammals, 58 fish, 6 amphibians, 2 reptiles, and 43 invertebrates.

Authorities for scientific name nomenclature were designated by the Forest Service National Coordinator. These authorities were used whenever possible. Regional authorities were supplemented to the designated ones as required for complete coverage. For the assessment, we were requested to "lump" rather than "split." Subspecies are not listed, with the exceptions of Canadian Geese and Peregrine Falcons. They are separated because they differ in terms of habitat requirements within a given ecosystem and some are on the list of threatened and endangered species. Authorities for nomenclature are listed at the end of each wildlife or fish group.

Part I of the list describes the abundance of wildlife and freshwater fish species in the seven major regions of Alaska: southeast, south-central, southwest, western, northwestern, interior and arctic (see map on page 2). The terms: common, uncommon, rare, and peripheral are used to describe the relative abundance of each occurring in that region. For species that are migratory, and vary in abundance seasonally, the abundance code refers to the highest level of abundance observed during any season. References for species occurrence in these regions are given at the end of each wildlife or fish group. The status of each species (endangered, threatened, or defined by the Forest Service as sensitive to land management practices) is reported. Those species which are State regulated for commercial, sport, or subsistence use are indicated.

Part II of the list describes the occurrence of the same species by ecosystem. Ecosystem types were specified by the Forest Service National Coordinator for the RPA Assessment. Terrestrial ecosystems are based on the "Major Ecosystems of Alaska" as defined by the joint Federal State Land Use Planning Commission for Alaska, 1973. See page 51 for details. Aquatic ecosystems were defined by a Forest Service committee working on the Assessment. They are defined in the narrative (page 52) preceding their use. Where applicable, indications are made in both terrestrial and aquatic ecosystems to better depict species requirements. References for species occurrence in these ecosystems are given at the end of each wildlife and fish group.

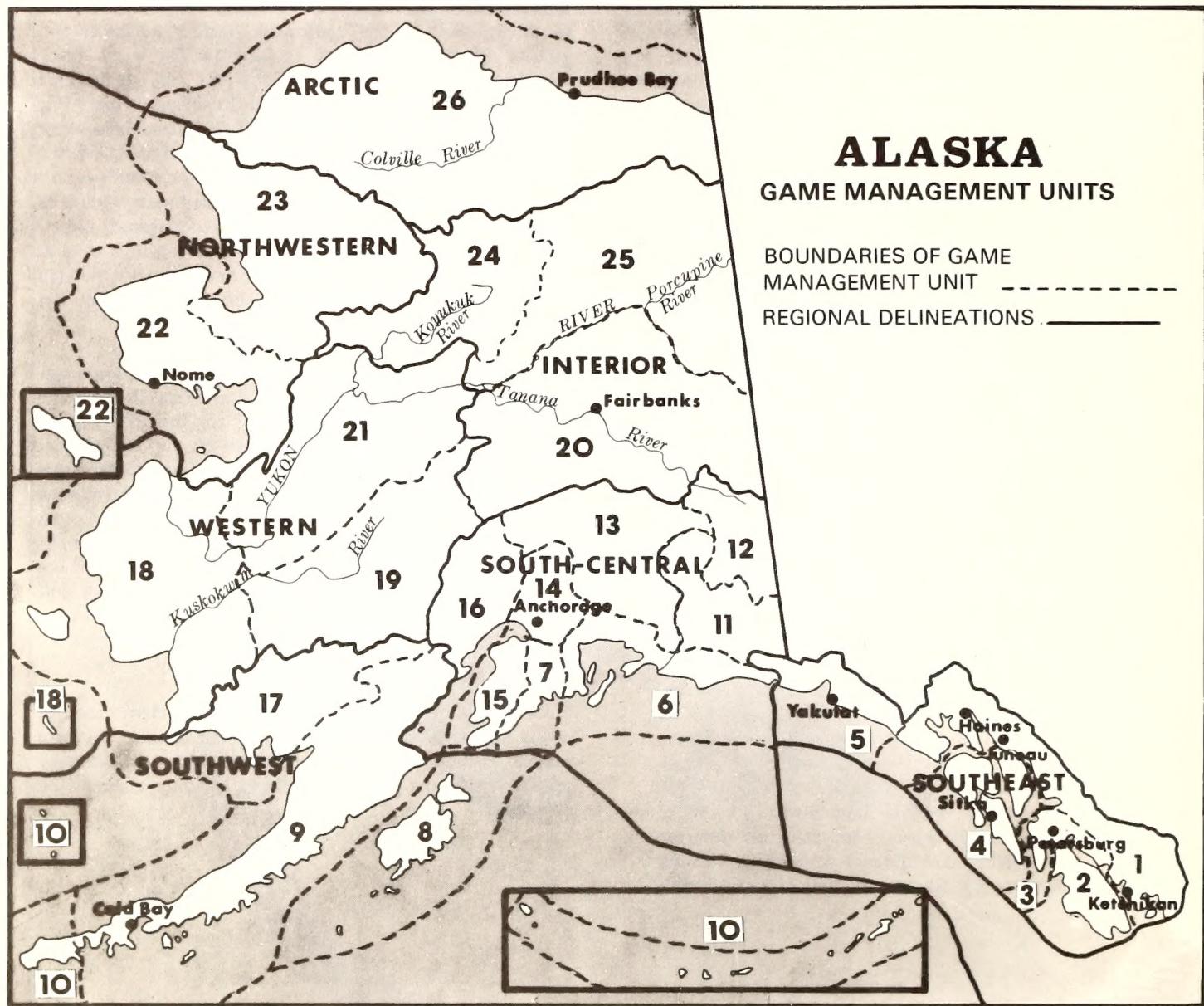
Wildlife and freshwater fish ranges and abundance are not nearly so well known as these lists may indicate. They are subject to further review and interpretation. Wherever specific questions arise the original references should be consulted.

ALASKA

GAME MANAGEMENT UNITS

BOUNDARIES OF GAME
MANAGEMENT UNIT

REGIONAL DELINEATIONS



This map depicts the seven regions of the State as it is divided for this species list.

Numbers correspond with game management units as used by Alaska Department of Fish and Game.

Part I:

Frequency of Occurrence of Alaskan Species by Region

Definition of terms and symbols

Wildlife and freshwater fish are classified by their frequency of occurrence in each of the seven regions of Alaska (southeast, south-central, southwest, western, northwestern, interior, arctic — as defined on the Alaska map, page 2). The terms common, uncommon, rare, and peripheral are used to describe the relative abundance of each species occurring in that region. A status of common was based upon a species occurrence throughout a large portion of the region in relatively moderate to high numbers. A status of uncommon was reported when a species range was limited, regardless of local density or occurrence in relatively low numbers throughout a large area. A status of rare indicates that the species occurs regularly within the region, but in very small numbers. The status peripheral means the species is on the geographic edge of its distribution. It usually has been recorded only a few times, but irregular observations are likely over a period of years. For species that are migratory and vary in abundance seasonally, the abundance code refers to the highest level of abundance observed during any season.

The frequency designations are arbitrary at best, purely the results of impression gained from available literature and consultation with professional biologists. They do not represent numerical status, but rather the frequency that a given species is seen in relation to related species and/or unrelated species utilizing the habitat niches. For example, the bald eagle and barn swallow are both listed as common in southeast Alaska, even though the latter occurs in much greater numbers.

The references for species frequency of occurrence by Alaskan region are cited after the authorities for nomenclature list at the end of each wildlife or fish group.

The status of Alaskan wildlife and fish species (Column 1 on the list) and the State regulations for the species (Column 2 on the list) are reported. The species status is classified if endangered, threatened, or sensitive. Species on the Federal or State threatened and endangered lists and those species defined by the Forest Service as sensitive to land or water management practices are indicated. A sensitive-to-management species is defined as a species which is presently classified or likely to be classified as rare, or known to be adversely affected by management practices, or known or may reasonably be expected to occur in such limited habitats and in such low numbers that management activities might directly or ultimately adversely affect population levels.

State regulations concern consumptive and non-consumptive use of Alaskan wildlife and fish. Some species are used commercially or for subsistence. Subsistence use means the use of wildlife or fish for direct personal or family consumption as food, shelter, fuel, clothing, tools, transportation, for the making and selling of handicraft articles, and for trade or barter. Recreational use includes those species used recreationally and consumed as well as those species used non-consumptively for recreation. Species not generally used by man for consumptive or non-consumptive purposes are indicated.

Symbol legends are reproduced throughout the checklist.

SNOW GOOSE



NOTE: Key to codes used in this table are on page 26.

TABLE I
BIRDS OF ALASKA, Occurrence by Region

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER GAVIIFORMES									
Common Loon <i>Gavia immer</i>	X	R2	C*	C*	U*	U*	U*	C*	P
Yellow-billed Loon <i>Gavia adamsii</i>	X	R2	U	U	R	U	U*	P	U*
Arctic Loon <i>Gavia arctica</i>	X	R2	C	C*	C*	C*	C*	C*	C*
Red-throated Loon <i>Gavia stellata</i>	X	R2	C*	C*	C*	C*	C*	U*	C*
ORDER PODICIPEDIFORMES									
Red-necked Grebe <i>Podiceps grisegena</i>	X	R2	C	C*	U*	U*	U*	C*	P*
Horned Grebe <i>Podiceps auritus</i>	X	R2	C	C*	C*	U*	U*	*	P
Western Grebe <i>Aechmophorus occidentalis</i>	X	R2	U	P					
Pied-billed Grebe <i>Podilymbus podiceps</i>	X	X	R	P					
ORDER PROCELLARIIFORMES									
Short-tailed Albatross <i>Diomedea albatrus</i>	FE SE	X	P	P	P				
Black-footed Albatross <i>Diomedea nigripes</i>	X	R2	C	C	C	R	R		
Laysan Albatross <i>Diomedea immutabilis</i>	X	R2	R	R	U	R			
Northern Fulmar <i>Fulmarus glacialis</i>	X	R2	U	C	C*	C	C		R
Pink-footed Shearwater <i>Puffinus creatopus</i>	X	X	R	R					
Flesh-footed Shearwater <i>Puffinus carneipes</i>	X	X		P	P				
New Zealand Shearwater <i>Puffinus bulleri</i>	X	R2		R					
Sooty Shearwater <i>Puffinus griseus</i>	X	R2	C	C	C				
Short-tailed Shearwater <i>Puffinus tenuirostris</i>	X	R2	R	C	C	C	C		R

Table 1 — 2

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER PROCELLARIIFORMES (Cont.)									
Manx Shearwater <i>Puffinus puffinus</i>	X	X			P				
Scaled Petrel <i>Pterodroma inexpectata</i>	X	X	U	U	U	R			
Cook's Petrel <i>Pterodroma cookii</i>	X	X			P				
Fork-tailed Storm-Petrel <i>Oceanodroma furcata</i>	X	R2	C*	C*	C*	U	P		
Leach's Storm-Petrel <i>Oceanodroma leucorhoa</i>	X	R2	C*	R*	C*				
ORDER PELECANIFORMES									
Double-crested Cormorant <i>Phalacrocorax auritus</i>	X	R2	U*	C*	C*				
Brandt's Cormorant <i>Phalacrocorax penicillatus</i>	X	X	P*	R*					
Pelagic Cormorant <i>Phalacrocorax pelagicus</i>	X	R2	C*	C*	C*	C*	C*		R
Red-faced Cormorant <i>Phalacrocorax urile</i>	X	R2		C*	C*	P			
ORDER CICONIIFORMES									
Great Blue Heron <i>Ardea herodias</i>	X	R2	U*	U*			P	P	
Chinese Egret <i>Egretta eulophotes</i> (Auth. 4)	X	X			P				
Snowy Egret <i>Egretta thula</i>	X	X	P						
American Bittern <i>Botaurus lentiginosus</i>	X	X	R*						
ORDER ANSERIFORMES									
Whooper Swan <i>Olor cygnus</i>	X	X		P	R	R			
Whistling Swan <i>Olor columbianus</i>	X	R2	C	C	C*	C*	U*	C*	C*
Trumpeter Swan <i>Olor buccinator</i>	X	R2	U*	C*	P	P*		U*	R*
Canada Goose, Vancouver <i>Branta canadensis fulva</i>	X	R1	C*						

Table 1 – 3

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER ANSERIFORMES (Cont.)									
Canada Goose, Dusky <i>Branta canadensis occidentalis</i>	X	R1	C	C*					
Canada Goose, Aleutian <i>Branta canadensis leucopareia</i>	FE SE	X	U	U	U*				
Canada Goose, Cackling <i>Branta canadensis minima</i>	X	R1	U	U	C	C*			
Canada Goose, Taverner's <i>Branta canadensis taverneri</i>	X	R1					C*		C*
Canada Goose, Lesser <i>Branta canadensis parvipes</i>	X	R1	U	C*	U*	C*		C*	
Brant <i>Branta bernicla</i>	X	R1	U	C	C	C*	C*	P	C*
Emperor Goose <i>Philacte canagica</i>	X	R1	P	R	C*		C*		R
White-fronted Goose <i>Anser albifrons</i>	X	R1	C	C*	C*	C*	C*	C*	C*
Bean Goose <i>Anser fabalis</i>	X	X			R	P			
Snow Goose <i>Chen caerulescens</i>	X	R1	U	C	C	C*	C*	C	C*
Ross' Goose <i>Chen rossii</i>	X	X	P						P
Mallard <i>Anas platyrhynchos</i>	X	R1	C*	C*	C*	C*	C*	C*	R*
Black Duck <i>Anas rubripes</i>	X	X	P	P					P
Spotbill Duck <i>Anas poecilorhyncha</i> (Auth. 4)	X	X			P				
Gadwall <i>Anas strepera</i>	X	R1	U*	C*	U*	P		R	P
Pintail <i>Anas acuta</i>	X	R1	C*	C*	C*	C*	C*	C*	C*
Falcated Teal <i>Anas falcata</i>	X	X			P				
Green-winged Teal <i>Anas crecca</i>	X	R1	C*	C*	C*	C*	C*	C*	U*
Baikal Teal <i>Anas formosa</i>	X	X			P	P	P		P
Garganey <i>Anas querquedula</i> (Auth. 4)	X	X			R				

Table 1 – 4

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER ANSERIFORMES (Cont.)									
Blue-winged Teal <i>Anas discors</i>	X	R1	U*	R*	P			U*	
Cinnamon Teal <i>Anas cyanoptera</i>	X	X	R	P				P	
Northern Shoveler <i>Anas clypeata</i>	X	R1	U*	C*	R	U*	U*	C*	R*
European Wigeon <i>Anas penelope</i>	X	X	R	R	U	R	R	R	
American Wigeon <i>Anas americana</i>	X	R1	C*	C*	U*	C*	C*	C*	C*
Wood Duck <i>Aix sponsa</i>	X	X	P						
Redhead <i>Aythya americana</i>	X	R1	R	R*	P	P		U*	P
Common Pochard <i>Aythya ferina</i>	X	X			R				
Ring-necked Duck <i>Aythya collaris</i>	X	R1	U*	R	P	P		R*	P
Canvasback <i>Aythya valisineria</i>	X	R1	R	U*	R	R		U*	
Greater Scaup <i>Aythya marila</i>	X	R1	C*	C*	C*	C*	C*	C*	U*
Lesser Scaup <i>Aythya affinis</i>	X	R1	C*	R	P	R*	R*	C*	P
Tufted Duck <i>Aythya fuligula</i>	X	X		P	R	P	P		.
Common Goldeneye <i>Bucephala clangula</i>	FS	R1	C*	C*	C*	U		C*	P
Barrow's Goldeneye <i>Bucephala islandica</i>	FS	R1	C*	C*	C*			C*	
Bufflehead <i>Bucephala albeola</i>	FS	R1	C*	C*	C*	R*		C*	
Oldsquaw <i>Clangula hyemalis</i>	X	R1	C*	C*	C*	C*	C*	C*	C*
Harlequin Duck <i>Histrionicus histrionicus</i>	X	R1	C*	C*	C*	U*	U*	U*	R*
Steller's Eider <i>Polysticta stelleri</i>	X	R1	P	C	C	C*			U*
Common Eider <i>Somateria mollissima</i>	X	R1	R*	U*	C*	C*	C*		C*
King Eider <i>Somateria spectabilis</i>	X	R1	P	U	C	C*	C*		C*

Table 1 — 5

	Species Status	State Reg. s.	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER ANSERIFORMES (Cont.)									
Spectacled Eider <i>Somateria fischeri</i>	X	R1	P		R	C*	C*		U*
White-winged Scoter <i>Melanitta deglandi</i>	X	R1	C	C*	C	U*		C*	U*
Surf Scoter <i>Melanitta perspicillata</i>	X	R1	C	C	C	C*	C*	C*	U*
Black Scoter <i>Melanitta nigra</i>	X	R1	U	C	C*	C*	C*	P	P
Ruddy Duck <i>Oxyura jamaicensis</i>	X	X	P					P	
Hooded Merganser <i>Lophodytes cucullatus</i>	FS	R2	U*	R	P			R	
Smew <i>Mergus albellus</i>	X	X		P	R				
Common Merganser <i>Mergus merganser</i>	FS	R2	C*	C*	C*			R*	
Red-breasted Merganser <i>Mergus serrator</i>	X	R2	C*	C*	C*	C*	C*	R*	R
ORDER FALCONIFORMES									
Goshawk <i>Accipiter gentilis</i>	X	R2	U*	U*	U*	R	R	U*	
Sharp-shinned Hawk <i>Accipiter striatus</i>	X	R2	C*	C*	P	R*	R*	C*	
Red-tailed Hawk <i>Buteo jamaicensis</i>	X	R2	U*	R*	P	P		C*	P
Swainson's Hawk <i>Buteo swainsoni</i>	X	X		P				R*	
Rough-legged Hawk <i>Buteo lagopus</i>	X	R2	U	R	C*	C*	C*	C*	C*
Golden Eagle <i>Aquila chrysaetos</i>	FS	R2	R*	R*	U*	U*	U*	C*	U*
White-tailed Eagle <i>Haliaeetus albicilla</i>	X	X			P				
Bald Eagle <i>Haliaeetus leucocephalus</i>	FS	R2	C*	C*	C*	R*	R*	U*	P
Steller's Sea Eagle <i>Haliaeetus pelagicus</i>	X	X			P				
Marsh Hawk <i>Circus cyaneus</i>	X	R2	U	C*	U*	U*	U*	U*	R*
Osprey <i>Pandion haliaetus</i>	X	X	R*	R*	R*	R*	R*	R*	P

Table 1 – 6

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER FALCONIFORMES (Cont.)									
Gyrfalcon <i>Falco rusticolus</i>	X	R2	R	R*	U*	U*	U*	U*	P
Peregrine Falcon, American <i>Falco peregrinus anatum</i>	SE FE	R2					R*	R	R*
Peregrine Falcon, Peale's <i>Falco peregrinus pealei</i>	X	R2	U*	U*	C*				
Peregrine Falcon, Tundra <i>Falco peregrinus tundrensis</i>	SE FE	R2					R*	R*	
Merlin <i>Falco columbarius</i>	X	R2	U*	R*	U*	R*		U*	R
American Kestrel <i>Falco sparverius</i>	X	R2	C	R			C*	P	
ORDER GALLIFORMES									
Blue Grouse <i>Dendragapus obscurus</i>	X	R1	C*						
Spruce Grouse <i>Canachites canadensis</i>	X	R1	R*	U*	R*	R*		C*	
Ruffed Grouse <i>Bonasa umbellus</i>	X	R1	P					C*	
Willow Ptarmigan <i>Lagopus lagopus</i>	X	R1	U*	U*	C*	C*	C*	C*	C*
Rock Ptarmigan <i>Lagopus mutus</i>	X	R1	C*	C*	C*	C*	C*	C*	U*
White-tailed Ptarmigan <i>Lagopus leucurus</i>	X	R1	U*	R*				U*	
Sharp-tailed Grouse <i>Pediocetes phasianellus</i>	X	R1						U*	
ORDER GRUIFORMES									
Common Crane <i>Grus grus</i>	X	X						P	
Sandhill Crane <i>Grus canadensis</i>	X	R1	C*	C*	C*	C*	C*	C*	U*
Sora <i>Porzana carolina</i>	X	X	R*					P	
European Coot <i>Fulica atra</i>	X	X				P			
American Coot <i>Fulica americana</i>	X	X	R	P	P		R	P	

Table 1 — 7

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER CHARADRIIFORMES									
Black Oystercatcher <i>Haematopus bachmani</i>	X	R2	C*	C*	C*				
Ringed Plover <i>Charadrius hiaticula</i>	X	X			P		P		
Semipalmated Plover <i>Charadrius semipalmatus</i>	X	R2	C*	C*	C*	C*	C*	C*	U*
Little Ringed Plover <i>Charadrius dubius</i> (Auth. 4)	X	X			P				
Mongolian Plover <i>Charadrius mongolus</i>	X	X		P	R	R*	R*		P
Killdeer <i>Charadrius vociferus</i>	X	R2	U*	R*	P	P		R*	P
Dotterel <i>Eudromias morinellus</i>	X	X			P	R*	R*		P
American Golden Plover <i>Pluvialis dominica</i>	X	R2	U	C	C	C*	C*	C*	C*
Black-bellied Plover <i>Pluvialis squatarola</i>	X	R2	C	C	C	C*	C*	R	U*
Black-tailed Godwit <i>Limosa limosa</i>	X	X			P		P		
Hudsonian Godwit <i>Limosa haemastica</i>	X	R2	R	U	P	U*	U*	R	R
Bar-tailed Godwit <i>Limosa lapponica</i>	X	R2	P	R	C	C*	C*		U*
Marbled Godwit <i>Limosa fedoa</i>	X	X	R	R	R*				
Eskimo Curlew <i>Numenius borealis</i>	SE FE	X			P				
Whimbrel <i>Numenius phaeopus</i>	X	R2	U	C	C	C*	C*	C*	U*
Bristle-thighed Curlew <i>Numenius tahitiensis</i>	X	R2	P	P	R	U*		P	
Far Eastern Curlew <i>Numenius madagascariensis</i> (Auth. 4)	X	X			R	P			
Upland Sandpiper <i>Bartramia americana</i>	X	R2	P	P				U*	
Redshank <i>Tringa totanus</i>	X	R2			P				
Marsh Sandpiper <i>Tringa stagnatilis</i> (Auth. 4)	X	X			P				

Table 1 – 8

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER CHARADRIIFORMES (Cont.)									
Greenshank <i>Tringa nebularia</i>	X	X			R				
Greater Yellowlegs <i>Tringa melanoleuca</i>	X	R2	C*	C*	C*	R*		R*	
Lesser Yellowlegs <i>Tringa flavipes</i>	X	R2	C*	C*	R	U*	U*	C*	P
Solitary Sandpiper <i>Tringa solitaria</i>	X	R2	U*	U*	R*	R*	P	U*	P
Wood Sandpiper <i>Tringa glareola</i>	X	X			R*		R		P
Willet <i>Catoptrophorus semipalmatus</i>	X	X						P	
Terek Sandpiper <i>Xenus cinereus</i> (Auth. 4)	X	X		P	R	R	R		
Common Sandpiper <i>Tringa hypoleucus</i> (Auth. 4)	X	R2			R		R		
Spotted Sandpiper <i>Actitis macularia</i>	X	R2	C*	C*	U*	U*	U*	C*	U*
Polynesian Tattler <i>Heteroscelus brevipes</i>	X	X			R		R		P
Wandering Tattler <i>Heteroscelus incanus</i>	X	R2	U	C*	U*	U*	U*	U*	P*
Ruddy Turnstone <i>Arenaria interpres</i>	X	R2	U	C	C	C*	C*	R	U*
Black Turnstone <i>Arenaria melanocephala</i>	X	R2	C	C	C*	C*	C*	P	
Wilson's Phalarope <i>Steganopus tricolor</i>	X	X	P					P	P
Northern Phalarope <i>Lobipes lobatus</i>	X	R2	C	C*	C*	C*	C*	C*	C*
Red Phalarope <i>Phalaropus fulicarius</i>	X	R2	R	C	C	C*	C*	P	C*
Common Snipe <i>Gallinago gallinago</i>	X	R1	C*	C*	C*	C*	C*	C*	C*
European Jacksnipe <i>Lymnocryptes minimus</i>	X	X			P				
Short-billed Dowitcher <i>Limnodromus griseus</i>	X	R2	C	C*	C*				
Long-billed Dowitcher <i>Limnodromus scolopaceus</i>	X	R2	U	C	U	C*	C*	C*	C*
Surfbird <i>Aphriza virgata</i>	X	R2	R	C*	R	R*		U*	

Table 1 – 9

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER CHARADRIIFORMES (Cont.)									
Great Knot <i>Calidris tenuirostris</i>	X	X			P		P		
Red Knot <i>Calidris canutus</i>	X	R2	R	C	R	U*	R*		R*
Sanderling <i>Calidris alba</i>	X	R2	U	U	U	U	U	R	U*
Semipalmated Sandpiper <i>Calidris pusilla</i>	X	R2	U	U	R	U*	U*	C*	C*
Western Sandpiper <i>Calidris mauri</i>	X	R2	C	C	C	C*	C*	R*	U*
Rufous-necked Sandpiper <i>Calidris ruficollis</i>	X	X	P	P	R	R*	R*		R*
Little Stint <i>Calidris minuta</i> (Auth. 4)	X	R							P
Temminck's Stint <i>Calidris temminckii</i> (Auth. 4)	X	R2			R		R		
Long-toed Stint <i>Calidris subminuta</i>	X	X			R		R		
Least Sandpiper <i>Calidris minutilla</i>	X	R2	C*	C*	C*	U*	U*	C*	U*
White-rumped Sandpiper <i>Calidris fuscicollis</i>	X	X		P				R	R*
Baird's Sandpiper <i>Calidris bairdii</i>	X	R2	U	U	U	U*	U*	U*	C*
Pectoral Sandpiper <i>Calidris melanotos</i>	X	R2	C	C	C	C*	C*	C	C*
Sharp-tailed Sandpiper <i>Calidris acuminata</i>	X	R2	P	R	U	U*	U		P
Rock Sandpiper <i>Calidris ptilocnemis</i>	X	R2	C	C	C*	C*	C*		
Dunlin <i>Calidris alpina</i>	X	R2	C	C*	C*	C*	C*	P	U*
Curlew Sandpiper <i>Calidris ferruginea</i>	X	X		P	P	P	P		R*
Spoon-bill Sandpiper <i>Eurynorhynchus pygmeus</i>	X	X			P				P
Broad-billed Sandpiper <i>Limicola falcinellus</i>	X	X			P				
Stilt Sandpiper <i>Micropalama himantopus</i>	X	X	P	P	P	P		R	R*

Table 1 – 10

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER CHARADRIIFORMES (Cont.)									
Buff-breasted Sandpiper <i>Tryngites subruficollis</i>	X	R2	P	P	P	P	P	R	R*
Ruff <i>Philomachus pugnax</i>	X	X		P	R	R	R		P
Pomarine Jaeger <i>Stercorarius pomarinus</i>	X	R2	R	C	C	C*	C*	P	U*
Parasitic Jaeger <i>Stercorarius parasiticus</i>	X	R2	U*	C*	C*	C*	C*	R	C*
Long-tailed Jaeger <i>Stercorarius longicaudus</i>	X	R2	R	R*	U*	C*	C*	C*	C*
South Polar Skua <i>Catharacta maccormicki</i>	X	X		R	R				P
Glaucous Gull <i>Larus hyperboreus</i>	X	R2	R	R	U*	C*	C*	R	C*
Glaucous-winged Gull <i>Larus glaucescens</i>	X	R2	C*	C*	C*	C*	C*	R	
Slaty-backed Gull <i>Larus schistisagus</i>	X	X			R	R	R		R
Western Gull <i>Larus occidentalis</i>	X	X			P				
Herring Gull <i>Larus argentatus</i>	X	R2	C*	C*	R	R*	R*	U*	P*
Thayer's Gull <i>Larus thayeri</i>	X	X	C	R	P				R
California Gull <i>Larus californicus</i>	X	X	R						
Ring-billed Gull <i>Larus delawarensis</i>	X	X	R	R	P				P
Mew Gull <i>Larus canus</i>	X	R2	C*	C*	C*	C*	C*	C*	R*
Black-headed Gull <i>Larus ridibundus</i>	X	R2		P	R		R		P
Franklin's Gull <i>Larus pipixcan</i>	X	X		P	P				
Bonaparte's Gull <i>Larus philadelphus</i>	X	R2	C*	C*	C*	C*	C*	U*	
Ivory Gull <i>Pagophila eburnea</i>	X	R2	P	P	R	U	U		U
Black-legged Kittiwake <i>Rissa tridactyla</i>	X	R2	U*	C*	C*	C*	C*	P	C
Red-legged Kittiwake <i>Rissa brevirostris</i>	X	R2		P	C*	R		P	

Table 1 – 11

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER CHARADRIIFORMES (Cont.)									
Ross' Gull <i>Rhodostethia rosea</i>	X	R2			P		R		C
Sabine's Gull <i>Xema sabini</i>	X	R2	R	U	U*	C*	C*	P	C*
Common Tern <i>Sterna hirundo</i>	X	X			R		P		
Arctic Tern <i>Sterna paradisaea</i>	X	R2	C*	C*	C*	C*	C*	U*	U*
Aleutian Tern <i>Sterna aleutica</i>	X	R2	P*	U*	U*	U*	U*		
Black Tern <i>Chlidonias niger</i>	X	X	P	P					P
White-winged Black Tern <i>Chlidonias leucopterus</i>	X	X			P				
Common Murre <i>Uria aalge</i>	X	R2	C*	C*	C*	C*	C*	P	P
Thick-billed Murre <i>Uria lomvia</i>	X	R2	R	R*	C*	C*	C*		R
Dovekie <i>Alle alle</i>	X	X			P		R		P
Black Guillemot <i>Cephus grylle</i>	X	R2			R	U*	U*	P	U*
Pigeon Guillemot <i>Cephus columba</i>	X	R2	C*	C*	C*	C*	C*		
Marbled Murrelet <i>Brachyramphus marmoratus</i>	X	R2	C*	C*	U*		P		
Kittlitz's Murrelet <i>Brachyramphus brevirostris</i>	X	R2	U*	C*	U*	U*	U*		R
Ancient Murrelet <i>Synthliboramphus antiquus</i>	X	R2	U*	U*	C*	R	R		
Cassin's Auklet <i>Ptychoramphus aleuticus</i>	X	R2	U*	R	C*				
Parakeet Auklet <i>Cyclorhynchus psittacula</i>	X	R2	R	U*	C*	C*	C*		P
Crested Auklet <i>Aethia cristatella</i>	X	R2		U	C*	C*	C*		R
Least Auklet <i>Aethia pusilla</i>	X	R2			C*	C*	C*		P
Whiskered Auklet <i>Aethia pygmaea</i>	X	R2			U*		P		
Rhinoceros Auklet <i>Cerorhinca monocerata</i>	X	R2	U*	R*	R*				

Table 1 – 12

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER CHARADRIIFORMES (Cont.)									
Horned Puffin <i>Fratercula corniculata</i>	X	R2	R*	U*	C*	C*	C*		R
Tufted Puffin <i>Lunda cirrhata</i>	X	R2	U*	C*	C*	C*	C*		P
ORDER COLUMBIIFORMES									
Band-tailed Pigeon <i>Columba fasciata</i>	X	X	R*					P	
Rock Dove <i>Columba livia</i>	X	X	C*	C*				U*	
Mourning Dove <i>Zenaida macroura</i>	X	X	R	R	P		P	R	
ORDER CUCULIFORMES									
Common Cuckoo <i>Cuculus canorus</i> (Auth. 4)	X	X				P			
Oriental Cuckoo <i>Cuculus saturatus</i>	X	X			P	P			
ORDER STRIGIFORMES									
Scops Owl <i>Otus scops</i>	X	X			P				
Screech Owl <i>Otus asio</i>	X	X	R	P					
Great Horned Owl <i>Bubo virginianus</i>	X	R2	C*	C*	U*	U*	U*	C*	P
Snowy Owl <i>Nyctea scandiaca</i>	X	R2	U	U	U*	U*	U*	R	U*
Hawk Owl <i>Surnia ulula</i>	X	R2	U	U*	U*	U*	U*	C*	
Pygmy Owl <i>Glaucidium gnoma</i>	X	X	R	P					
Barred Owl <i>Strix varia</i>	X	X	P						
Great Gray Owl <i>Strix nebulosa</i>	X	R2	R*	R*				R*	
Long-eared Owl <i>Asio otus</i>	X	X	P						
Short-eared Owl <i>Asio flammeus</i>	X	R2	C	C*	C*	C*	C*	C*	C*
Boreal Owl <i>Aegolius funereus</i>	X	R2	U	U*	U*		R	C*	

Table 1 – 13

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER STRIGIFORMES (Cont.)									
Saw-whet Owl <i>Aegolius acadicus</i>	X	X	R*	R*	P		P		
ORDER CAPRIMULGIFORMES									
Jungle Nightjar <i>Caprimulgus indicus</i> (Auth. 4)	X	X			P				
Whip-poor-will <i>Caprimulgus vociferus</i>	X	X	P						
Common Nighthawk <i>Chordeiles minor</i>	X	X	R	P			P	P	
ORDER APODIFORMES									
Black Swift <i>Cypseloides niger</i>	X	X	R*	P					
Vaux's Swift <i>Chaetura vauxi</i>	X	R2	U*	P					
White-throated Needletailed Swift <i>Hirundapus caudacutus</i>	X	X			P				
White-rumped Swift <i>Apus pacificus</i>	X	X			P				
Common Swift <i>Apus apus</i>	X	X			P				
Ruby-throated Hummingbird <i>Archilochus colubris</i>	X	X					P		
Anna's Hummingbird <i>Calypte anna</i>	X	X	R	P					
Rufous Hummingbird <i>Selasphorus rufus</i>	X	R2	C*	C*				P	
ORDER CORACIIFORMES									
Belted Kingfisher <i>Megaceryle alcyon</i>	X	R2	C*	U*	U*	U*		C*	
Hoopoe <i>Upupa epops</i> (Auth. 4)	X	X				P			
ORDER PICIFORMES									
Wryneck <i>Jynx torquilla</i>	X	X					P		
Common Flicker <i>Colaptes auratus</i>	FS	R2	U*	U*			P	C*	P
Yellow-bellied Sapsucker <i>Sphyrapicus varius</i>	FS	R2	U*	P			P		

Table 1 – 14

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER PICIFORMES (Cont.)									
Hairy Woodpecker <i>Picoides villosus</i>	FS	R2	U*	U*				U*	
Downy Woodpecker <i>Picoides pubescens</i>	FS	R2	U*	U*	R*	R*		U*	
Black-backed Three-toed Woodpecker <i>Picoides arcticus</i>	FS	X	R	P	P			R*	
Northern Three-toed Woodpecker <i>Picoides tridactylus</i>	FS	R2	U*	R*	U*	U*	U*	U*	
ORDER PASSERIFORMES									
Eastern Kingbird <i>Tyrannus tyrannus</i>	X	X	R	P	P	P	P	P	P
Western Kingbird <i>Tyrannus verticalis</i>	X	X	P	P				P	
Say's Phoebe <i>Sayornis saya</i>	X	R2	R*	R*	P	U*	U*	U*	U*
Yellow-bellied Flycatcher <i>Empidonax flaviventris</i>	X	X						P	
Alder Flycatcher <i>Empidonax alnorum</i>	X	R2	U*	U*	U*		U*	C*	P
Hammond's Flycatcher <i>Empidonax hammondi</i>	X	R2	U*					C*	P
Dusky Flycatcher <i>Empidonax oberholseri</i>	X	X							P
Western Flycatcher <i>Empidonax difficilis</i>	X	R2	C*	P					
Western Wood Pewee <i>Contopus sordidulus</i>	X	R2	U*	R`			P	U`	P
Olive-sided Flycatcher <i>Nuttallornis borealis</i>	X	R2	U*	R*	R*	R*	R*	U*	P
Skylark <i>Alauda arvensis</i>	X	X			R`				
Horned Lark <i>Eremophila alpestris</i>	X	R2	U*	R	R*		U*	C*	U*
Violet-green Swallow <i>Tachycineta thalassina</i>	X	R2	C*	C*	U*			C*	P
Tree Swallow <i>Iridoprocne bicolor</i>	X	R2	C*	C*	C*	C*	C*	C*	P
Bank Swallow <i>Riparia riparia</i>	X	R2	R*	U*	U*	U*	U*	C*	P
Rough-winged Swallow <i>Stelgidopteryx ruficollis</i>	X	X	R*	P	P				P

Table 1 – 15

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER PASSERIFORMES (Cont.)									
House Martin <i>Delichon urbica</i>	X	X			P				P
Barn Swallow <i>Hirundo rustica</i>	X	R2	C*	C*	P	P	P	P	P
Cliff Swallow <i>Petrochelidon pyrrhonota</i>	X	R2	R*	U*	U*	U*	U*	C*	U*
Purple Martin <i>Progne subis</i>	X	X		P	P	P	P	P	P
Gray Jay <i>Perisoreus canadensis</i>	X	R2	R	R*	U*		U*	C*	P
Steller's Jay <i>Cyanocitta stelleri</i>	X	R2	C*	C*					
Black-billed Magpie <i>Pica pica</i>	X	R2	C*	C*	C*	R		C*	P
Common Raven <i>Corvus corax</i>	X	R2	C*	C*	C*	C*	C*	C*	C*
Northwestern Crow <i>Corvus caurinus</i>	X	R2	C*	C*	R*				
Clark's Nutcracker <i>Nucifraga columbiana</i>	X	X	P		P	P	P		
Black-capped Chickadee <i>Parus atricapillus</i>	X	R2	U*	U*	U*	U*	U*	C*	P
Mountain Chickadee <i>Parus gambeli</i>	X	X	P						
Gray-headed Chickadee <i>Parus cinctus</i>	X	X				R*	R*	R*	
Boreal Chickadee <i>Parus hudsonicus</i>	X	R2	P	R*	U*		U*	C*	
Chestnut-backed Chickadee <i>Parus rufescens</i>	X	R2	C*	C*					
Red-breasted Nuthatch <i>Sitta canadensis</i>	X	R2	U*	U*	P		P	R	
Brown Creeper <i>Certhia familiaris</i>	X	R2	U*	U*	U*			R*	
Dipper <i>Cinclus mexicanus</i>	X	R2	C*	C*	C*	U*	U*	U*	R*
Winter Wren <i>Troglodytes troglodytes</i>	X	R2	C*	U*	C*				P
Brown Thrasher <i>Toxostoma rufum</i>	X	X							P
American Robin <i>Turdus migratorius</i>	X	R2	C*	C*	C*	C*	C*	C*	R*

Table 1 – 16

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER PASSERIFORMES (Cont.)									
Eye-browed Thrush <i>Turdus obscurus</i> (Auth. 3)	X	X			R	P		P	
Dusky Thrush <i>Turdus naumanni</i> (Auth. 4)	X	X			P	P		P	
Fieldfare <i>Turdus pilaris</i>	X	X						P	
Varied Thrush <i>Ixoreus naevius</i>	X	R2	C*	C*	C*	C*	C*	C*	P
Hermit Thrush <i>Catharus guttatus</i>	X	R2	C*	C*	C*	R*	R*	U*	P
Swainson's Thrush <i>Catharus ustulatus</i>	X	R2	C*	U*	U*	R*	R*	C*	
Gray-cheeked Thrush <i>Catharus minimus</i>	X	R2	R*	U*	C*	C*	C*	C*	C*
Mountain Bluebird <i>Sialia currucoides</i>	X	X	R			P		R*	P
Wheatear <i>Oenanthe oenanthe</i>	X	R2	P	R*	R	C*	C*	U*	U*
Bluethroat <i>Luscinia svecica</i>	X	R2					R*		R*
Siberian Rubythroat <i>Luscinia calliope</i>	X	X			R	P			
Townsend's Solitaire <i>Myadestes townsendi</i>	X	R2	R*	R*				R	
Willow Warbler <i>Phylloscopus trochilus</i>	X	X							P
Dusky Warbler <i>Phylloscopus fuscatus</i>	X	X						P	
Arctic Warbler <i>Phylloscopus borealis</i>	X	R2			U*	C*	C*	C*	C*
Middendorff's Grasshopper Warbler <i>Locustella ochotensis</i>	X	X				P			
Golden-crowned Kinglet <i>Regulus satrapa</i>	X	R2	C*	U*	U*			R	
Ruby-crowned Kinglet <i>Regulus calendula</i>	X	R2	C*	C*	R*	U*	U*	U*	P
Red-breasted Flycatcher <i>Ficedula parva</i>	X	X			P		P		
Sooty Flycatcher <i>Muscicapa sibirica</i>	X	X			P				

Table 1 – 17

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER PASSERIFORMES (Cont.)									
Gray-spotted Flycatcher <i>Muscicapa griseisticta</i>	X	X			R				
Mountain Accentor <i>Prunella montanella</i>	X	X			P	P		P	
White Wagtail <i>Motacilla alba</i>	X	X	P		R	R*	R*	P	R
Gray Wagtail <i>Motacilla cinerea</i> (Auth. 4)	X	X			P		P		
Yellow Wagtail <i>Motacilla flava</i>	X	R2	P	R	C*	C*	P	U*	
Water Pipit <i>Anthus spinoletta</i>	X	R2	C*	C*	C*	C*	C*	C*	C*
Indian Tree Pipit <i>Anthus hodgsoni</i> (Auth. 4)	X	X		P		P			
Pechora Pipit <i>Anthus gustavi</i>	X	X					P		
Red-throated Pipit <i>Anthus cervinus</i>	X	X		R	U*	U*		P	
Bohemian Waxwing <i>Bombycilla garrulus</i>	X	R2	U*	U*	R*	R*	R*	C*	
Cedar Waxwing <i>Bombycilla cedrorum</i>	X	R2	R*						
Brown Shrike <i>Lanius cristatus</i>	X	X					P		
Northern Shrike <i>Lanius excubitor</i>	X	R2	U	U*	C*	U*	U*	U*	U*
Starling <i>Sturnus vulgaris</i>	X	X	U*	R		P		R*	
Red-eyed Vireo <i>Vireo olivaceus</i>	X	X	R*	P					
Warbling Vireo <i>Vireo gilvus</i>	X	X	U	P					
Black-and-white Warbler <i>Mniotilla varia</i>	X	X						P	
Tennessee Warbler <i>Vermivora peregrina</i>	X	X	R*	P			P		
Orange-crowned Warbler <i>Vermivora celata</i>	X	R2	C*	C*	C*	U*	U*	C*	P
Yellow Warbler <i>Dendroica petechia</i>	X	R2	C*	U*	C*	C*	C*	C*	R*

Table 1 – 18

	Species Status	State Reg.'s	Southeast*	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER PASSERIFORMES (Cont.)									
Magnolia Warbler <i>Dendroica magnolia</i>	X	X	P			P			P
Cape May Warbler <i>Dendroica tigrina</i>	X	X	P				P	P	
Yellow-rumped Warbler <i>Dendroica coronata</i>	X	R2	C*	U*	U*	C*	C*	C*	P
Townsend's Warbler <i>Dendroica townsendi</i>	X	R2	U*	U*	P		C*	P	
Black-throated Green Warbler <i>Dendroica virens</i>	X	X	P						
Bay-breasted Warbler <i>Dendroica castanea</i>	X	X						P	
Blackpoll Warbler <i>Dendroica striata</i>	X	R2	R	R*	C*	C*	C*	U*	P
Northern Waterthrush <i>Seiurus noveboracensis</i>	X	R2	R*	R*	C*	C*	C*	C*	P
MacGillivray's Warbler <i>Oporornis tolmiei</i>	X	R2	U*						P
Common Yellowthroat <i>Geothlypis trichas</i>	X	R2	U*	P				P	
Wilson's Warbler <i>Wilsonia pusilla</i>	X	R2	C*	C*	C*		U*	C*	P
Canada Warbler <i>Wilsonia canadensis</i>	X	X							P
American Redstart <i>Setophaga ruticilla</i>	X	X	U*						P
Bobolink <i>Dolichonyx oryzivorus</i>	X	X							P
Western Meadowlark <i>Sturnella neglecta</i>	X	X	P						P
Yellow-headed Blackbird <i>Xanthocephalus xanthocephalus</i>	X	X	P	P		P	P	P	P
Red-winged Blackbird <i>Agelaius phoeniceus</i>	X	R2	U*	R*			P	U*	P
Rusty Blackbird <i>Euphagus carolinus</i>	X	R2	U*	U*	U*	U*	U*	U*	R*
Brewer's Blackbird <i>Euphagus cyanocephalus</i>	X	X	P						P
Common Grackle <i>Quiscalus quiscula</i>	X	X	P			P	P	P	P
Brown-headed Cowbird <i>Molothrus ater</i>	X	X	R*	P	P	P	P	P	P

Table 1 – 19

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern, Interior	Arctic
ORDER PASSERIFORMES (Cont.)								
Western Tanager <i>Piranga ludoviciana</i>	X	R2	U*				P	P
Scarlet Tanager <i>Piranga olivacea</i>	X	X		P				P
Brambling <i>Fringilla montifringilla</i>	X	X	P	P	R		P	P
Hawfinch <i>Coccothraustes coccothraustes</i>	X	X			P			
Evening Grosbeak <i>Hesperiphona vespertina</i>	X	X	P					
Bullfinch <i>Pyrrhula pyrrhula</i>	X	X	P	P	P	P	P	P
Common Rose Finch <i>Carpodacus erythrinus</i> (Auth. 4)	X	X			R	R	R	
Purple Finch <i>Carpodacus purpureus</i>	X	X	P					
Pine Grosbeak <i>Pinicola enucleator</i>	X	R2	C*	U*	U*	U*	U*	U* R
Gray-crowned Rosy Finch <i>Leucosticte tephrocotis</i>	X	R2	U*	U*	C*	U*	U*	U* R*
Oriental Greenfinch <i>Carduelis sinica</i>	X	X			P			
Hoary Redpoll <i>Carduelis hornemannii</i>	X	R2	R	R	C	C*	C*	C* C*
Common Redpoll <i>Carduelis flammea</i>	X	R2	C*	C*	C*	C*	C*	U*
Pine Siskin <i>Carduelis pinus</i>	X	R2	C*	C*	P		P	R* P
Red Crossbill <i>Loxia curvirostra</i>	X	R2	C*	R*	R		P	P
White-winged Crossbill <i>Loxia leucoptera</i>	X	R2	C*	U*	U*	U*	U*	U* P
Savannah Sparrow <i>Passerculus sandwichensis</i>	X	R2	C*	C*	C*	C*	C*	C* C*
Dark-eyed Junco <i>Junco hyemalis</i>	X	R2	C*	U*	R	U*	U*	C* R*
Tree Sparrow <i>Spizella arborea</i>	X	R2	C	U*	U*	U*	U*	C* U*
Chipping Sparrow <i>Spizella passerina</i>	X	R2	R*	P			P	U* P
Harris' Sparrow <i>Zonotrichia querula</i>	X	X	R	P				P

Table 1 – 20

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest*	Western	Northwestern	Interior	Arctic
ORDER PASSERIFORMES (Cont.)									
White-crowned Sparrow <i>Zonotrichia leucophrys</i>	X	R2	C	U*	C*	C*	C*	C*	U*
Golden-crowned Sparrow <i>Zonotrichia atricapilla</i>	X	R2	C*	C*	C*	C*	C*	U*	R
White-throated Sparrow <i>Zonotrichia albicollis</i>	X	X	P	P				P	P
Fox Sparrow <i>Passerella iliaca</i>	X	R2	C*	C*	C*	C*	C*	C*	U*
Lincoln's Sparrow <i>Melospiza lincolni</i>	X	R2	C*	C*	U*	U*	U*	C*	
Song Sparrow <i>Melospiza melodia</i>	X	R2	C*	C*	C*				
Lapland Longspur <i>Calcarius lapponicus</i>	X	R2	C	U*	C*	C*	C*	C*	C*
Smith's Longspur <i>Calcarius pictus</i>	X	R2	P					R*	P
Snow Bunting <i>Plectrophenax nivalis</i>	X	R2	U*	U*	C*	C*	C*	C*	C*
McKay's Bunting <i>Plectrophenax hyperboreus</i>	X	R2		P	U*	R			
Little Bunting <i>Emberiza pusilla</i>	X	X			P				P
Rustic Bunting <i>Emberiza rustica</i>	X	X			R		P		
Gray Bunting <i>Emberiza variabilis</i>	X	X			P				
Pallas' Reed Bunting <i>Emberiza pallasi</i> (Auth. 4)	X	X				P		P	
Reed Bunting <i>Emberiza schoeniclus</i>	X	X			P				

AUTHORITIES for Nomenclature: Number 1) was used except where noted.

- 1) American Ornithologists' Union. *Check-list of North American birds*. 5th ed. Baltimore, 1957.
 American Ornithologists' Union. "Thirtysecond supplement to the American Ornithologists' Union check-list of North American birds." *Auk* 90:411-419, 1973.
 American Ornithologists' Union. "Thirtythird supplement to the American Ornithologists' Union check-list of North American birds." *Auk* 93:875-879, 1976.
- 2) Peterson, Roger Tory. *A Field Guide to Western Birds*. Houghton-Mifflin, Boston, 1969.
- 3) Gabrielson, Iran N., and Frederick C. Lincoln. *The Birds of Alaska*. Stackpole Co., Harrisburg, 1959.
- 4) Vaurie, C. *The Birds of the Palearctic Fauna*. Vol. 1 *Passeriformes*. H. F. & G. Witherby, London, 1959.
 Vaurie, C. *The Birds of the Palearctic Fauna*. Vol. 2 *Non-Passeriformes*. H. F. & G. Witherby, London, 1965.

References for Regional Occurrence:

- 1) Anchorage Audubon Society. *Birds of Anchorage, Alaska — a checklist*. Anchorage, 1978.
- 2) Armstrong, Robert H., and the Editors of Alaska Magazine. *A Guide to the Birds of Alaska*. Alaska Northwest Publishing Company, Edmonds, In Press.
- 3) Gabrielson, Iran N., and Frederick C. Lincoln. *The Birds of Alaska*. Stackpole Co., Harrisburg, 1959.
- 4) Gibson, D. D. *Checklist — Birds of Alaska*. University of Alaska Museum, College, 1977.
- 5) Isleib, M. E. *Birds of the Chugach National Forest Alaska*. USDA Forest Service, Anchorage, 19____.
- 6) Isleib, M. E., and B. Kessel. *Birds of the North Gulf Coast - Prince William Sound Region, Alaska*. Biol. Papers Univ. Alaska No. 14. Univ. of Alaska, College, 1973.
- 7) Jarvis, Robert L., and James C. Bartonek, eds. *Management and Biology of Pacific Flyway Geese*, A Symposium sponsored by the Northwest section of the Wildlife Society. Portland, 1979.
- 8) Kessel, Brina, Robert B. Weeden, and George C. West. *Bird-finding in Interior and Southcentral Alaska*. Alaska Ornithological Society, College, 1966.
- 9) Kessel, Brina, and Daniel D. Gibson. *Status and Distribution of Alaska Birds*. Cooper Ornithological Society. Allen Press, Inc., Lawrence, 1978.
- 10) MacIntosh, R. *Birds of the Kodiak Island Archipelago — a checklist*. Kodiak, 1978.
- 11) Murie, O. J. *Fauna of the Aleutian Islands and Alaska Peninsula*. N. Am. Fauna No. 61. USDI Fish and Wildlife Service, Washington, 1959.
- 12) Murphy, D., and K. Kertell. *Birds of Mount McKinley National Park, Alaska — a checklist*, revised. USDI National Park Service, Mt. McKinley National Park, 1978.
- 13) Palmer, R. S., ed. *Handbook (33) of North American Birds, Vol. 1, 2, 3*. Yale University Press, New Haven, 1976.
- 14) Pitelka, F. A. "An Avifaunal Review for the Barrow Region and North Slope of Arctic Alaska." *Arctic and Alpine Research* 6:161-184, 1974.
- 15) USDA Forest Service, Juneau Chapter Audubon Society, Alaska Department of Fish and Game. *Bird Checklist of Southeast Alaska*. USDA Forest Service, Juneau, 1978.
- 16) Paige, Bruce. *Birds of Glacier Bay National Monument — a checklist*. USDI, National Park Service, Juneau, 1979.
- 17) Weeden, R. B., and L. N. Ellison. *Upland Game Birds of Forest and Tundra*. Alaska Dept. of Fish and Game. Wildl. Booklet series No. 3, 44 p. Juneau, 1968.

**Key to Codes Used in Table 1, Birds of Alaska,
Occurrence by Region**

(1) Species Status code legend:

X = No special status
FE = Species on the Federal Threatened and Endangered list
SE = Species on the State Threatened and Endangered list
FS = Species defined by Forest Service as sensitive to land management practices

(2) State Regulations code legend:

X = Not generally used by humans for consumptive or non-consumptive purposes
R1 = Used recreationally and consumed
R2 = Used non-consumptively for recreation
C = Used commercially
S = Used for subsistence

(3) Frequency of Occurrence code legend:

C = Common
U = Uncommon
R = Rare
P = Peripheral — casual or accidental occurrence, not annual
* = Breeder, known or probable

Blank indicates species does not occur in that region.

SNOWSHOE HARE



NOTE: Key to codes used in this table are on page 35.

TABLE 2
MAMMALS OF ALASKA, Occurrence by Region

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER INSECTIVORA									
Masked Shrew <i>Sorex cinereus</i>	FS	X	C	C	C	C	C	C	C
St. Lawrence Island Shrew <i>Sorex jacksoni</i>	X	X					U		
Pribilof Shrew <i>Sorex pribilofensis</i>	X	X			U				
Dusky Shrew <i>Sorex obscurus</i>	X	X	C	C	C	C	U	C	U
Water Shrew <i>Sorex palustris</i>	X	X	U	U	R				
Glacier Bay Water Shrew <i>Sorex alaskanus</i>	X	X	U						
Arctic Shrew <i>Sorex arcticus</i>	X	X			U	C	C	C	C
Pygmy Shrew <i>Microsorex hoyi</i>	X	X		C	U	U		C	
ORDER CHIROPTERA									
Little Brown Myotis <i>Myotis lucifugus</i>	X	X	C	C	C	U			U
Keen's Myotis <i>Myotis keenii</i>	X	X	R						
Long-legged Myotis <i>Myotis volans</i>	X	X	R						
California Myotis <i>Myotis californicus</i>	X	X	R						
Silver-haired Bat <i>Lasionycteris noctivagans</i>	X	X	R	R					
Big Brown Bat <i>Eptesicus fuscus</i>	X	X	R	R					
ORDER LAGOMORPHA									
Collared Pika <i>Ochotona collaris</i>	X	R1	U	C	R			C	
European Rabbit <i>Oryctolagus cuniculus</i>	X	R1		C					
Snowshoe Hare <i>Lepus americanus</i>	FS	R1	U	C	U	C	C	C	R
Arctic Hare <i>Lepus arcticus</i>	X	R1			C	C	C		

Table 2 – 2

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER RODENTIA									
Woodchuck <i>Marmota monax</i>	X	R1						U	
Alaska Marmot <i>Marmota flaviventris</i>	X	R1					U	U	U
Hoary Marmot <i>Marmota caligata</i>	X	R1	U	C	C			C	
Arctic Ground Squirrel <i>Spermophilus parryii</i>	X	R1	U	C	C	C	C	C	C
Red Squirrel <i>Tamiasciurus hudsonicus</i>	FS	R1	C	C	U	C	U	C	R
Northern Flying Squirrel <i>Glaucomys sabrinus</i>	X	R1	C	U				C	
Beaver <i>Castor canadensis</i>	FS	C R1	C	C	U	C	C	C	
Deer Mouse <i>Peromyscus maniculatus</i>	FS	X	C						
Sitka Mouse <i>Peromyscus sitkensis</i>	FS	X	C						
Bushy-tailed Woodrat <i>Neotoma cinerea</i>	X	X	R						
Northern Red-backed Vole <i>Clethrionomys rutilus</i>	FS	X	C	C	C	C	C	C	C
Gapper's Red-backed Vole <i>Clethrionomys gapperi</i>	FS	X	C						
Meadow Vole <i>Microtus pennsylvanicus</i>	X	X	C	U	U	U	U	C	R
Tundra Vole <i>Microtus oeconomus</i>	X	X	C	C	C	C	C	C	C
Long-tailed Vole <i>Microtus longicaudus</i>	X	X	C	U				U	
Coronation Island Vole <i>Microtus coronarius</i>	X	X	C						
Yellow-cheeked Vole <i>Microtus xanthognathus</i>	X	X				U		C	X
Singing Vole <i>Microtus miurus</i>	X	X		C			C	C	C
Insular Vole <i>Microtus abbreviatus</i>	X	X				U			
Muskrat <i>Ondatra zibethicus</i>	X	C R1	U	C	U	C	C	C	

Table 2 – 3

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER RODENTIA (Cont.)									
Brown Lemming <i>Lemmus sibiricus</i>	X	X		C	C	C	C	C	C
Black-footed Lemming <i>Lemmus nigripes</i>	X	X			U				
Northern Bog Lemming <i>Synaptomys borealis</i>	X	X	U	U	U	U		U	
Collared Lemming <i>Dicrostonyx torquatus</i>	X	U						U	
Norway Rat <i>Rattus norvegicus</i>	X	X	C	C	C	R	U	U	
House Mouse <i>Mus musculus</i>	X	X	C	C	C	U	U	U	
Meadow Jumping Mouse <i>Zapus hudsonius</i>	X	X	U	C	C	U		C	
Western Jumping Mouse <i>Zapus princeps</i>	X	X	R						
Porcupine <i>Erethizon dorsatum</i>	FS	R2	C	C	C	C	U	C	R
ORDER CETACEA									
Baird's Bottle-nosed Whale <i>Berardius bairdii</i>	X	R1	U	U	U				
North Pacific Beaked Whale <i>Mesoplodon stejnegeri</i>	X	R1	R	R	R				
Goose-beaked Whale <i>Ziphius cavirostris</i>	X	R1	U	U	U				
Sperm Whale <i>Physeter catodon</i>	FE	R1	U	U	U				
White Whale or Beluga <i>Delphinapterus leucas</i>	FS X	S R1		R	C	C	C		C
Narwhal <i>Monodon monoceros</i>	X	R1						P	
Striped Porpoise <i>Stenella coeruleoalba</i>	X	R1	P						
Northern Right-Whale Dolphin <i>Lissodelphis borealis</i>	X	R1	R						
Pacific White-sided Dolphin <i>Lagenorhynchus obliquidens</i>	X	R1	C	U	U				
Killer Whale <i>Orcinus orca</i>	X	R1	U	U	U	R	R		R
Grampus or Risso's Dolphin <i>Grampus griseus</i>	X	R1	R						

Table 2 — 4

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER CETACEA (Cont.)									
Common Pilot Whale <i>Globicephala melaena</i>	X	R1	R		P				
Harbor Porpoise <i>Phocoena phocoena</i>	X	R1	C	C	C	R	R		R
Dall's Porpoise <i>Phocoenoides dalli</i>	FS	S R1	C	C	C				
Gray Whale <i>Eschrichtius robustus</i>	X	S R1	C	C	C	C	C		C
Fin Whale <i>Balaenoptera physalus</i>	FE	R1	U	U	U				
Sei Whale or Roqual <i>Balaenoptera borealis</i>	FE	R1	U	U	U				
Little Piked or Minke Whale <i>Balaenoptera acutorostrata</i>	X	R1	C	C	C	R	R		
Blue or Sulphur-bottomed Whale <i>Balaenoptera musculus</i>	FE	R1		R	R	R			
Hump-backed Whale <i>Megaptera novaeangliae</i>	FE	R1	C	C	R	R			
Right Whale <i>Balaena glacialis</i>	FE	R1	R	R	R				
Bowhead Whale <i>Balaena mysticetus</i>	FE	S R1					U		U
ORDER CARNIVORA									
Coyote <i>Canis latrans</i>	X	C R1	U	C	U	U	U	C	U
Gray Wolf <i>Canis lupus</i>	FS	C,S R1	C	C	C	C	C	C	C
Arctic Fox <i>Alopex lagopus</i>	X	C,S R1		U	C	U	C	R	C
Red Fox <i>Vulpes vulpes</i>	X	C R1	U	C	C	C	C	C	U
Black Bear <i>Ursus americanus</i>	FS	S R1	C	C	U	C	C	C	C
Grizzly Bear and relatives <i>Ursus arctos</i>	FS	S R1	C	C	C	C	C	C	C
Polar Bear <i>Ursus maritimus</i>	X	S R2					C		C
Raccoon <i>Procyon lotor</i>	X	R1	U		U				
Marten <i>Martes americana</i>	FS	C R1	C	C	U	C	U	C	

Table 2 – 5

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER CARNIVORA (Cont.)									
Ermine <i>Mustela erminea</i>	X	C R1	C	C	C	C	C	C	C
Least Weasel <i>Mustela nivalis</i>	X	C R1	R	C	C	C	C	C	C
Mink <i>Mustela vision</i>	X	C R1	C	C	C	C	C	C	U
Wolverine <i>Gulo gulo</i>	FS	S C	C	C	C	C	C	C	C
River Otter <i>Lutra canadensis</i>	FS	R1	C	C	C	C	U	C	
Prince of Wales Otter <i>Lutra mira</i> (Auth. 2)	FS	X	U						
Sea Otter <i>Enhydra lutris</i>	FS	S R2	U	U	U				
Lynx <i>Felis lynx</i>	FS	C R1	U	C	U	U	C	C	C
ORDER PINNIPEDIA									
Northern Fur Seal <i>Callorhinus ursinus</i>	FS	S R2			C				
Northern Sea Lion <i>Eumetopias jubata</i>	FS	S R2	C	C	C	U			
California Sea Lion <i>Zalophus californianus</i>	X	R2	P						
Walrus <i>Odobenus rosmarus</i>	FS	S R2			C	C	C		C
Harbor Seal <i>Phoca vitulina</i>	FS	S R2	C	C	C	U	U		U
Ribbon Seal <i>Phoca fasciata</i>	X	S R2			C	U	U		U
Ringed Seal <i>Phoca hispida</i>	X	S R2				C	C		C
Bearded Seal <i>Erignathus barbatus</i>	X	S R2			C	C	C		C
Hooded Seal <i>Cystophora cristata</i>	X	R2			P				
Northern Elephant Seal <i>Mirounga angustirostris</i>	X	S R2	U						

Table 2 – 6

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER ARTIODACTYLA									
Roosevelt Elk <i>Cervus elephas roosevelti</i>	FS	R1			U				
Sitka Black-tailed Deer <i>Odocoileus hemionus sitkensis</i>	FS	R1	C	U	U				
Moose <i>Alces alces</i>	FS	S R1	C	C	C	C	C	C	C
Caribou <i>Rangifer tarandus</i>	X	S R1		C	C	C	C	C	C
Bison <i>Bison bison</i>	X	R1		U		U		U	
Mountain Goat <i>Oreamnos americanus</i>	FS	R1	C	C	U				
Muskox <i>Ovibos moschatus</i>	X	S R1				U	U		U
Dall's Sheep <i>Ovis dalli</i>	X	S R1		C	U	U	U	C	C

AUTHORITIES for Nomenclature: Number 1) was used except where noted.

- 1) Jones, J. Knox, Dilford C. Carter, and Hugh H. Genoways. *The Revised Checklist of North American Mammals North of Mexico*. Occasional Papers, the Museum, Texas Tech. University, Lubbock, 1975.
- 2) Hall, E. Raymond, and Keith R. Kelson. *The Mammals of North America*, Vol. I and II. The Ronald Press Company, N.Y., 1959.

References for Regional Occurrence:

- 1) Alaska Department of Fish & Game. *Alaska's Wildlife and Habitat* (Blue Book). (Available from: Alaska Dept. of Fish and Game, 333 Raspberry Road, Anchorage, AK 99502) 1973.
- 2) ---- *Alaska's Wildlife and Habitat* Volume II. (Available from: Alaska Dept. of Fish and Game, 333 Raspberry Road, Anchorage, AK 99502) 1978.
- 3) Deems, E. F., and D. Pursley, eds. *North American Furbearers*. International Association of Fish and Wildlife Agencies, College Park, 1978.
- 4) Hall, E. Raymond, and Keith R. Kelson. *The Mammals of North America*, Vol. I and II. The Ronald Press Company, N.Y., 1959.
- 5) Juraz, Charles. Personal communication. Juneau, 1979.
- 6) MacDonald, Stephen O. *Checklist of Mammals of Alaska*. University of Alaska Museum, College, 1978.
- 7) ---- Personal communications on small mammals and rodents. University of Alaska Museum, College, 1979.
- 8) Manville, R. H., and S. P. Young. *Distribution of Alaskan Mammals*. Circular 211, USDI, Bureau of Sport Fisheries and Wildlife, Washington, 1965.

- 9) McKnight, Donald, Ph.D. Personal communications on large mammals, furbearers, marine mammals. Alaska Department of Fish and Game, Wildlife Biologist. Juneau, 1979.
- 10) Rice, Dale, Ph.D. Personal communication on whales. National Marine Fisheries Service, Wildlife Research Biologist, National Marine Mammal Laboratory. Seattle, 1979.

**Key to Codes Used in Table 2, Mammals of Alaska,
Occurrence by Region**

(1) Species Status code legend:

X = No special status
FE = Species on the Federal Threatened and Endangered list
SE = Species on the State Threatened and Endangered list
FS = Species defined by Forest Service as sensitive to land management practices

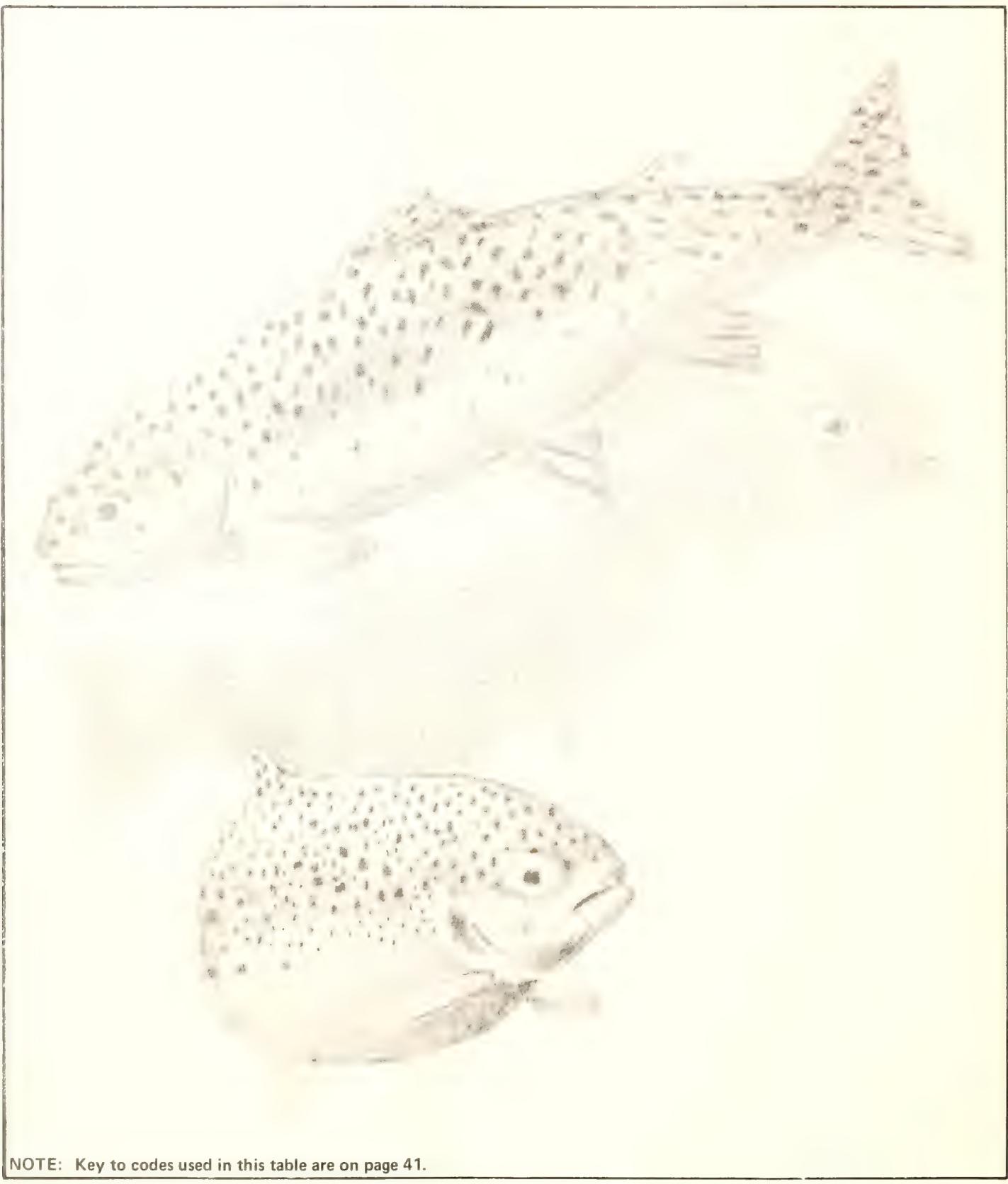
(2) State Regulations code legend:

X = Not generally used by humans for consumptive or non-consumptive purposes
R1 = Used recreationally and consumed
R2 = Used non-consumptively for recreation
C = Used commercially
S = Used for subsistence

(3) Frequency of Occurrence code legend:

C = Common
U = Uncommon
R = Rare
X = Occurs, frequency unspecified
Blank indicates species does not occur in that region.

RAINBOW TROUT



NOTE: Key to codes used in this table are on page 41.

TABLE 3
FRESHWATER AND ANADROMOUS FISH OF ALASKA¹
Occurrence by Region

(See footnote, p. 41)

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER PETROMYZONTIFORMES (PETROMYZONTIA: HYPEROARTII)									
Pacific Lamprey <i>Entosphenus tridentatus</i>	X	X	CA	CA	CA	CA	CA		
River Lamprey <i>Lampetra ayresi</i>	X	X	UA						
Arctic Lamprey <i>Lampetra japonica</i>	X	X		CF,A	CF,A	CF,A	UF,A	CF	UF
Western Brook Lamprey <i>Lampetra richardsoni</i> (Auth. 7)	X	X	UF						
Arctic Lamprey (nonparasitic) <i>Lethenteron alaskense</i> (Auth. 8)	X	X		UF	CF	CF	CF	CF	
ORDER ACIPENSERIFORMES									
Green Sturgeon <i>Acipenser medirostris</i> (Auth. 4, 5, 6, 8)	X	X	UA	UA	UA	RA			
White Sturgeon <i>Acipenser transmontanus</i>	X	R1	RA	UA	UA				
ORDER CLUPEIFORMES									
American Shad <i>Alosa sapidissima</i> (Auth. 4, 5, 6, 9)	X	X	UA	RA	RA				
Pacific Herring <i>Clupea harengus pallasi</i>	X	C R1	M	M	M	M	M	M	M
ORDER SALMONIFORMES									
Arctic Cisco <i>Coregonus autumnalis</i>	X	S,C R1					CA	CA	CA
Lake Whitefish <i>Coregonus clupeaformis</i>	X	X	CF	CF				CF	
Bering Cisco <i>Coregonus laurettae</i>	X	S		CF	CF	CF	CF	CF	CF
Broad Whitefish <i>Coregonus nasus</i>	X	C,S R1			CF,A	UF	UF	CF,A	
Alaska Whitefish <i>Coregonus nelsoni</i> (Auth. 4, 5)	X	S R1			FC	FC	FC		

Table 3 – 2

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER SALMONIFORMES (Cont.)									
Humpback Whitefish <i>Coregonus pidschian</i>	X	C,S				CF,A	CFA		CFA
Least Cisco <i>Coregonus sardinella</i>	X	S,C R1			CF	CF	CF	CF	CF
Pink Salmon <i>Oncorhynchus gorbuscha</i>	FS	S,C R1	CA	CA	CA	CA	CA		UA
Chum Salmon <i>Oncorhynchus keta</i>	FS	S,C R1	CA	CA	CA	CA	CA	CA	UA
Coho Salmon <i>Oncorhynchus kisutch</i>	FS	S,C R1	CA	CA	CA	CA	RA	UA	
Sockeye Salmon <i>Oncorhynchus nerka</i>	FS	S,C R1	CA	CA	CA	CA		UA	
Chinook Salmon <i>Oncorhynchus tshawytscha</i>	FS	S,C R1	CA	CA	CA	CA	UA	CA	
Pygmy Whitefish <i>Prosopium coulteri</i>	X	X			CF	CF			
Round Whitefish <i>Prosopium cylindraceum</i>	X	S	UF	UF	CF	CF	CF	CF	UF
Mountain Whitefish <i>Prosopium williamsoni</i>	X	X	UF						
Cutthroat Trout <i>Salmo clarki</i>	FS	R1	CA	UA					
Rainbow Trout (Steelhead) <i>Salmo gairdneri</i>	FS	C R1	CF,A	CF,A	CF,A			CF,A	
Arctic Char <i>Salvelinus alpinus</i>	X	R1	UF		CF	CF	CF	CF	CF
Angayukaksurak Char <i>Salvelinus anaktuvukensis</i> (Auth. 3)	X	X							RF
Brook Trout <i>Salvelinus fontinalis</i>	X	R1	UF						
Dolly Varden <i>Salvelinus malma</i>	FS	S,C R1	CA,F	CA,F	CA,F	UA,F	UA,F	UA,F	RA,F
Lake Trout <i>Salvelinus namaycush</i>	X	R1	UF	CF	CF				
Inconnu <i>Stenodus leucichthys</i>	X	S,C R1			CF	CF	UF	CF	
Arctic Grayling <i>Thymallus arcticus</i>	X	S R1	CF	CF	CF	CF	CF	CF	CF
Pond Smelt <i>Hypomesus olidus</i>	X	X	CF	CF	CF	CF	CF		

Table 3 – 3

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
ORDER SALMONIFORMES (Cont.)									
Surf Smelt <i>Hypomesus pretiosus</i>	X	R1	M	M	M				
Rainbow Smelt <i>Osmerus mordax</i>	X	S R1	CF,A	CF,A	CF,A	CF,A	CF,A		UF,A
Longfin Smelt <i>Spirinchus thaleichthys</i>	X	C R1	CA,F	CA					
Eulachon <i>Thaleichthys pacificus</i>	FS	C R1	CA	CA	CA				
Alaska Blackfish <i>Dallia pectoralis</i>	X	S			CF	CF	UF	UF	CF
Northern Pike <i>Esox lucius</i>	FS	R1		UF	UF	CF	CF	CF	CF
ORDER CYPRINIFORMES (OSTARIOPHYSI-IN PART)									
Lake Chub <i>Couesius plumbeus</i>	X	R1				UF		CF	
Longnose Sucker <i>Catostomus catostomus</i>	X	X	CF	CF	CF	CF	CF	CF	UF
ORDER PERCOPSIIFORMES (SALMOPERCAE: AMBLYOPSIFORMES)									
Trout-perch <i>Percopsis omiscomaycus</i>	X	X				R		R	
ORDER GADIFORMES (ANACANTHINI)									
Arctic Cod <i>Boreogadus saida</i> (Auth. 4, 5, 6, 9)	X	X				M	M		M
Saffron Cod <i>Eleginops gracilis</i> (Auth. 4, 5, 6, 9)	X	S R1	M	M	M	M	M		M
Pacific Cod <i>Gadus macrocephalus</i> (Auth. 4, 5, 6, 9)	X	C R1	M	M	M	M			
Burbot <i>Lota lota</i>	X	S R1		CF	CF	CF	CF	CF	FC
ORDER GASTEROSTEIIFORMES (THORACOSTEI: HEMIBRANCHII: LOPHOBRANCHII: SOLENICHTHYES)									
Threespine Stickleback <i>Gasterosteus aculeatus</i>	X	X	CF,A	CF,A	CF,A	UF,A	UF,A		R
Ninespine Stickleback <i>Pungitius pungitius</i>	X	X		CF	CF	CF	CF		CF

Table 3 – 4

Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
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ORDER PERCIFORMES
(PERCOMORPHI: ACANTHOPTERGII)

Shiner Perch <i>Cymatogaster aggregata</i>	X	X	M					
Sharpnose Sculpin <i>Clinocottus acuticeps</i>	X	X	M	M	M			
Coastrange Sculpin <i>Cottus aleuticus</i>	X	X	CF	CF	CF			
Prickly Sculpin <i>Cottus asper</i>	X	X	CF	CF				
Slimy Sculpin <i>Cottus cognatus</i>	X	X	CF	CF	CF	CF	CF	UF
Pacific Staghorn Sculpin <i>Leptocottus armatus</i>	X	X	M	M	M			
Fourhorn Sculpin <i>Myoxocephalus quadricornis</i>	X	X				CF		CF

ORDER PLEURONECTIFORMES
(HETEROSOMATA)

Arctic Flounder <i>Liopsetta glacialis</i> (Auth. 4, 5, 6, 9)	X	X		M	M	M		M
Starry Flounder <i>Platichthys stellatus</i>	X	R1	M	M	M	M	M	M

AUTHORITIES for Nomenclature: Number 1) was used except where noted.

- 1) Bailey, Reeve M., et al. *A List of Common and Scientific Names of Fishes from the United States and Canada* (3rd ed.) Amer. Fish. Soc. Special Publ. No. 6, Amer. Fisheries Soc., Washington, 1970.
- 2) Hubbs, C. L., and I. C. Potter. "Distribution, Phylogeny and Taxonomy." In: Hardisty, M. W., and I. C. Potter, eds. *The Biology of Lampreys*. Vol. 2. Academic Press, N.Y., 1971.
- 3) Morrow, J. E. "A New Species of *Salvelinus* from the Brooks Range, Northern Alaska." In: *Studies on Alaskan Fishes*. Biol. Pap. Univ. Alaska No. 13. Univ. of Alaska, College, 1973.
- 4) —— *Illustrated Keys to the Fresh-water Fishes of Alaska*. Alaska Northwest Publ. Co., Edmonds, 1974.
- 5) —— *The Freshwater Fishes of Alaska*. Corvallis Environmental Research Laboratory, U.S. Environmental Protection Agency, Corvallis, 1978.
- 6) Quast, J. C., and E. L. Hall. *List of Fishes of Alaska with a Guide to some of their Literature*. NOAA Tech. Rept. NMFS SSRF-658. NOAA, Seattle, 1972.
- 7) Vladkov, V. D., and W. I. Follett. "*Lampetra richardsoni* a New Non-parasitic Species of Lamprey (Petromyzonidae) from Western North America." *J. Fish. Res. Bd. Canada* 22(1):139-158. 1965.
- 8) Vladkov, V. D., and Edward Kott. *A New Non-parasitic Species of the Holarctic Lamprey Genus Lethenteron Creaser and Hubbs, 1922, (Petromyzonidae) from Northwestern North America with Notes on Other Species of the Same Genus*. Biol. Pap. Univ. Alaska No. 19. Univ. of Alaska, College, 1978.
- 9) Wilimovsky, N. J. "List of the Fishes of Alaska." *Stanford Ichthyol. Bull.* 4:279-294. 1954.

Table 3 – 5

References for Regional Occurrence:

- 1) Alaska Dept. of Fish and Game. *Alaska's Fisheries Atlas*, Vol. I, II. (Available from: Alaska Dept. of Fish and Game, 333 Raspberry Road, Anchorage, AK 99502), 1978.
- 2) Craig, P. C., and W. Griffiths. "Ecology of Fishes in Simpson Lagoon." In: *Beaufort Sea Barrier Island-Lagoon Ecological Process Studies*, by LGL Limited, Boulder, 1978.
- 3) McPhail, J. D., and C. C. Lindsey. *Freshwater Fishes of Northwest Canada and Alaska*. Bulletin 173, Fisheries Research Board, Ottawa, 1970.
- 4) Morrow, J. E. "A New Species of *Salvelinus* from the Brooks Range, Northern Alaska." In: *Studies on Alaskan Fishes*. Biol. Pap. Univ. Alaska No. 13. Univ. of Alaska, College, 1973.
- 5) —— *Illustrated Keys to the Fresh-water Fishes of Alaska*. Alaska Northwest Publ. Co., Edmonds, 1974.
- 6) —— *The Freshwater Fishes of Alaska*. Corvallis Environmental Research Laboratory, U.S. Environmental Protection Agency, Corvallis, 1978.
- 7) Scott, W. B., and E. J. Crossman. *Freshwater Fishes of Canada*. Bulletin 184, Fisheries Research Board of Canada, Ottawa, 1973.
- 8) Vladykov, V. D., and Edward Kott. A New Non-parasitic Species of the Holarctic Genus *Lethenteron Creaser and Hubbs*, 1922, (*Petromyzonidae*) from Northwestern North America with Notes on Other Species of the Same Genus. Biol. Pap. Univ. Alaska No. 19. Univ. of Alaska, College, 1978.
- 9) Wing, Bruce, Ph.D., Chief Oceanography Investigations, Auke Bay Fisheries Laboratory, Auke Bay, Alaska. Personal communication, 1979.

**Key to Codes Used in Table 3,
Freshwater and Anadromous Fish of Alaska, Occurrence by Region**

(1) Species Status code legend:

X = No special status
FE = Species on the Federal Threatened and Endangered list
SE = Species on the State Threatened and Endangered list
FS = Species defined by Forest Service as sensitive to land management practices

(2) State Regulations code legend:

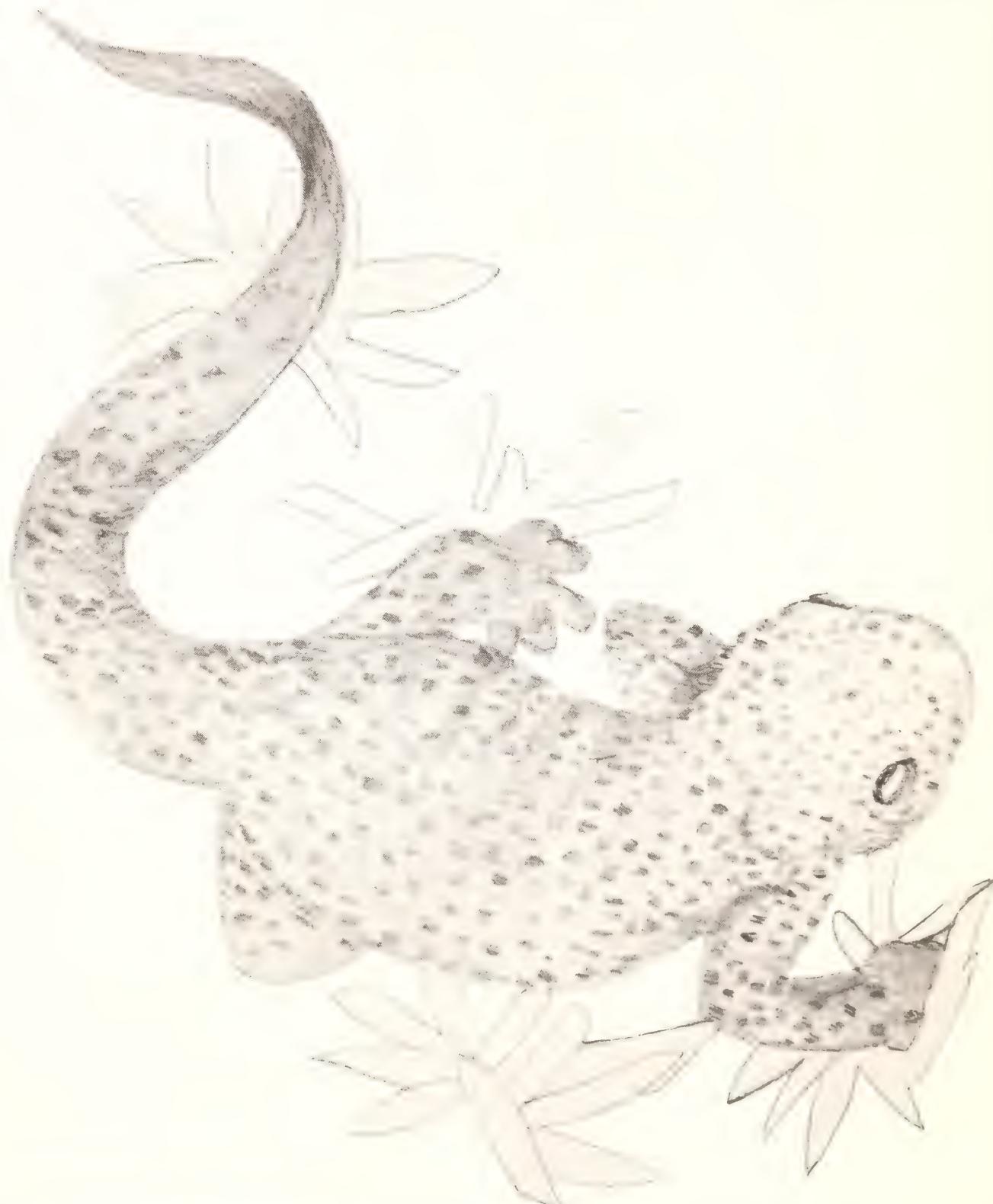
X = Not generally used by humans for consumptive or non-consumptive purposes
R1 = Used recreationally and consumed
R2 = Used non-consumptively for recreation
C = Used commercially
S = Used for subsistence

(3) Frequency of Occurrence code legend:

CF = Common, freshwater
UF = Uncommon, freshwater
RF = Rare, freshwater
CA = Common, anadromous
UA = Uncommon, anadromous
RA = Rare, anadromous
M = Marine species that frequently enter freshwater
Blank indicates species does not occur in that region

¹This list is limited to anadromous and freshwater species and a few marine species that frequently enter freshwaters. The many strictly marine species have been excluded. For a more complete listing, see Quast, J. C., and E. L. Hall *List of Fishes of Alaska with a Guide to Some of Their Literature*. NOAA Tech. Rept. NMFS SSRF-658. NOAA, Seattle, 1972.

ROUGH-SKINNED NEWT



NOTE: Key to codes used in this table are on page 44.

TABLE 4
AMPHIBIANS AND REPTILES OF ALASKA, Occurrence by Region

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
AMPHIBIANS									
ORDER CAUDATA									
Rough-skinned Newt <i>Taricha granulosa</i>									
	X	X	C	P					
Northwestern Salamander <i>Ambystoma gracile</i>									
	X	X	P						
Long-toed Salamander <i>Ambystoma macrodactylum</i>									
	X	X	U						
ORDER ANURA									
Western Toad <i>Bufo boreas</i>									
	X	X	C	U					
Spotted Frog <i>Rana pretiosa</i>									
	X	X	C						
Wood Frog <i>Rana sylvatica</i>									
	X	X	U	C	C	C	U	C	U
REPTILES									
ORDER CHELONIA									
Pacific Leatherback Turtle <i>Dermochelys coriacea</i>									
	FE	X	P	P	P				
ORDER SQUAMATA									
Common Gartersnake <i>Thamnophis sirtalis</i>									
	X	X	P						

AUTHORITY for Nomenclature:

- 1) Dowling, Herndon G. "A Classification and Checklist of Amphibians and Reptiles Found in the United States and Canada" In: 1974 Yearbook of Herpetology, H. G. Dowling, ed. American Museum of Natural History, N.Y., 1975.

References for Regional Occurrence:

- 1) Hodge, R. P. *Amphibians and Reptiles in Alaska, the Yukon, and Northwest Territories*. Alaska Northwest Publishing Company, Anchorage, 1976.
- 2) Hodge, R. P. "Geographic Distribution: *Dermochelys coriacea*." SSAR Herpetological Review, 10(3):102. 1979.

**Key to Codes Used in Table 4,
Amphibians and Reptiles of Alaska, Occurrence by Region**

(1) Species Status code legend:

X = No special status
FE = Species on the Federal Threatened and Endangered list
SE = Species on the State Threatened and Endangered list
FS = Species defined by Forest Service as sensitive to land management practices

(2) State Regulations code legend:

X = Not generally used by humans for consumptive or non-consumptive purposes
R1 = Used recreationally and consumed
R2 = Used non-consumptively for recreation
C = Used commercially
S = Used for subsistence

(3) Frequency of Occurrence code legend:

C = Common
U = Uncommon
R = Rare
P = Peripheral

Blank indicates species does not occur in that region

WEATHERVANE SCALLOP



NOTE: Key to codes used in this table are on page 50.

TABLE 5
COMMERCIALLY IMPORTANT INVERTEBRATES OF ALASKA, Occurrence by Region

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
Brown or Golden King Crab <i>Lithodes aquispina</i> (Auth. 6)	FS	C,S R1	X	X	X				
Short Claw King Crab <i>Paralithodes brevipes</i> (Auth. 4)	X	C,S R1			X				
Red King Crab <i>Paralithodes camtschatica</i> (Auth. 4)	FS	C,S R1	X	X	X	X	X		
Blue King Crab <i>Paralithodes platypus</i> (Auth. 4)	FS	C,S R1	X	X	X	X	X		X
Dungeness Crab <i>Cancer magister</i> (Auth. 6)	FS	C,S R1	X	X	X				
Tanner Crab <i>Chionocetes bairdi</i> (Auth. 3)	FS	C,S R1	X	X	X	X			
Snow Crab <i>Chionocetes opilio</i> (Auth. 6)	FS	C,S R1			X	X	X		X
Foraminata Box Crab <i>Lopholithodes foraminatus</i> (Auth. 6)	FS	S R1	X	X					
Mandt's Box Crab <i>Lopholithodes mandtii</i> (Auth. 5, 6)	FS	S R1	X						
Hairy or Horse Crab <i>Telmessus cheiragonus</i> (Auth. 4, 6)	FS	S R1	X						
Bering Sea Hairy Crab <i>Erimacrus isenbeckii</i> (Auth. 4, 6)	FS	S (C)		X					
Red Rock Crab <i>Cancer productus</i> (Auth. 4, 6)	FS	S R1	X	X					
Shrimp (Sand Shrimp) <i>Crangon sp.</i> (Auth. 6)	FS	S R1	X	X	X	X	X		X

Table 5 — 2

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
Broken-back Shrimp <i>Heptacarpus</i> sp. (Auth. 3)	FS	C,S R1	X	X	X	X	X		X
Side-striped Shrimp <i>Pandalopsis dispar</i> (Auth. 3)	FS	C,S R1	X	X	X	X			
Longtail Pink Shrimp <i>Pandalus tridens</i> (Auth. 6)	FS	C,S R1	X	X	X	X			
Pink Shrimp <i>Pandalus borealis</i> (Auth. 3)	FS	C,S R1	X	X	X	X	X		
Humpy Shrimp <i>Pandalus goniurus</i> (Auth. 3)	FS	C,S R1	X	X	X	X	X		X
Spot Shrimp <i>Pandalus platyceros</i> (Auth. 3)	FS	C,S R1	X	X	X				
Ocean Pink Shrimp <i>Pandalus jordani</i> (Auth. 3)	FS	C,S R1	X	X	X				
Coon-stripe Shrimp <i>Pandalus hypsinotus</i> (Auth. 3)	FS	C,S R1	X	X	X	X			
Dock Shrimp <i>Pandalus danae</i> (Auth. 3)	FS	C,S R1	X	X					
Japanese Abalone <i>Haliotis kamtschatkana</i> (Auth. 5)	FS	C,S R1	X	X	X				
Nuttall's Cockle <i>Clinocardium nuttallii</i> (Auth. 5)	FS	S R1	X	X	X	X	X		
Alaska Surf Clam <i>Spisula alaskana</i> (Auth. 5)	FS	S R1	X	X	X	X	X		X
Butter Clam <i>Saxidomus giganteus</i> (Auth. 5)	FS	S R1	X	X	X				
Pacific Littleneck <i>Protothaca staminea</i> (Auth. 5)	FS	S R1	X	X	X				
Dall's Razor Clam <i>Siliqua alta</i> (Auth. 1)	FS	C,S R1		X	X	X	X		X

Table 5 – 3

	Species Status	State Reg.'s	Southeast	Southcentral	Southwest	Western	Northwestern	Interior	Arctic
Pacific Razor Clam <i>Siliqua patula</i> (Auth. 5)	FS	C,S R1	X	X	X				
Weathervane Scallop <i>Pecten caurinus</i> (Auth. 5)	FS	C,S R1	X	X	X				
Japanese Oyster <i>Crassostrea gigas</i> (Auth. 5)	FS	C,S R1	X						
Northwest Neptune <i>Neptunea lyrata</i> (Auth. 1)	FS	C	X	X	X	X			
Neptuna <i>Neptunea pribiloffensis</i> (Auth. 1)	FS	C	X	X	X	X			
Neptuna <i>Neptunea venosa</i> (Auth. 1)	FS	C			X	X			
Neptuna <i>Neptunea ventricosa</i> (Auth. 1)	FS	C			X	X			
Octopus <i>Octopus dofleini</i> (Auth. 3)	FS	C,S R1	X	X	X				
Octopus <i>Octopus lieoderma</i> (Auth. 3)	FS	C,S R1	X	X	X				
Red Sea Urchin <i>Strongylocentrotus franciscanus</i> (Auth. 3)	X	S (C)	X	X	X				
Green Sea Urchin <i>Strongylocentrotus droebachiensis</i> (Auth. 3)	FS	S (C)	X	X	X	X	X		X
Pale Sea Urchin <i>Strongylocentrotus pallidus</i> (Auth. 3)	X	S (C)	X	X	X	X	X		X
Purple Sea Urchin <i>Strongylocentrotus purpuratus</i> (Auth. 3)	XS	S (C)	X						
Aleutian Sea Urchin <i>Strongylocentrotus polyacanthus</i> (Auth. 2)	X	S (C)			X				
Red Sea Cucumber <i>Parastichopus californicus</i> (Auth. 3)	FS	S (C)	X	X					

AUTHORITIES for Nomenclature:

- 1) Abbott, R. T. *American Seashells*. 2nd Ed. Van Nostrand Reinhold Co., N.Y., 1974.
- 2) Jensen, Margit. "The Strongylocentrotidae (Echinoidea), A Morphologic and Systematic Study." *Sarsia* 57:112-148. 1974.
- 3) Kozloff, Eugene N. *Keys to the Marine Invertebrates of Puget Sound, the San Juan Archipelago, and Adjacent Regions*. University of Washington Press, Seattle, 1974.
- 4) Makarov, V. V. "Fauna of the USSR, Crustacea," Vol. 10, No. 3. *Animura*, Academy of Sciences USSR, 1938, Translated by Israel Program for Scientific Translations by F. D. Por, 1962.
- 5) Morris, Percy A. *Peterson Field Guide Series: A Field Guide to Pacific Coast Shells Including Shells of Hawaii and the Gulf of California*. Houghton-Mifflin, Boston, 1968.
- 6) Rathbun, Mary J. "Decapod Crustaceans of the Northwest Coast of North America." In: *Harriman Alaska Expedition*, Vol. X *Crustacea*. Doubleday, Page, N.Y., 1904.

References for Regional Occurrence:

- 1) Abbott, R. T. *American Seashells*. 2nd Ed. Van Nostrand Reinhold Co., N.Y., 1974.
- 2) Johnson, M. E., and H. J. Snook. *Seashore Animals of the Pacific Coast*. Dover Publications, Inc., N.Y., 1955.
- 3) Morris, Percy A. *Peterson Field Guide Series: A Field Guide to Pacific Coast Shells Including Shells of Hawaii and the Gulf of California*. Houghton-Mifflin, Boston, 1968.
- 4) Rathbun, Mary J. "Decapod Crustaceans of the Northwest Coast of North America." In: *Harriman Alaska Expedition*, Vol. X *Crustacea*. Doubleday, Page, N.Y., 1904.
- 5) Ricketts, E. F., and J. Calvin. *Between Pacific Tides*. Stanford University Press, Stanford, 1948.
- 6) Wing, Bruce, Ph.D., Chief Oceanography Investigations, Auke Bay Fisheries Laboratory, Auke Bay, Alaska. Personal communication, 1979.

**Key to Codes Used in Table 5,
Commercially Important Invertebrates of Alaska, Occurrence by Region**

(1) Species Status code legend:

X = No special status
 FE = Species on the Federal Threatened and Endangered list
 SE = Species on the State Threatened and Endangered list
 FS = Species defined by Forest Service as sensitive to land management practices

(2) State Regulations code legend:

X = Not generally used by humans for consumptive or non-consumptive purposes
 R1 = Used recreationally and consumed
 C = Used commercially
 S = Used for subsistence
 (C) = May be used commercially in near future

(3) Frequency of Occurrence code legend:

X = Occurs, frequency undetermined
 Blank indicates species does not occur in this region

PART II:

Frequency of Occurrence of Alaskan Species by Ecosystem

Definitions of Terms and Symbols

In this list wildlife and fish are listed by occurrence in major Alaskan ecosystems. Birds and land mammals are classified according to terrestrial ecosystems of coniferous forest and brush, tundra, etc. Freshwater fish, marine mammals, invertebrates and certain water fowl are classified according to aquatic habitats which include marine, estuarine, riverine, lacustrine and palustrine. Amphibians, reptiles, some birds and mammals are classified according to both aquatic habitats and terrestrial ecosystems.

The following are brief descriptions of the **terrestrial ecosystems**.¹

The coastal western hemlock and sitka spruce forest is a dense evergreen forest ecosystem. In Alaska, these forests are primarily western hemlock and Sitka spruce, with a scattering of mountain hemlock, lodgepole pine, western red cedar and Alaska cedar. Black cottonwood and red alder are common along streams, rivers and beach fringes. Subalpine and Pacific silver fir occur occasionally at treeline and near sea level. Throughout the system the forest under-story has blueberry, huckleberry, copperbrush, Sitka alder, devilsclub, juniper, skunk cabbage and fern plants.

Bottomland spruce and poplar forest is a tall, relatively dense interior forest system of primarily white spruce, locally mixed with cottonwood or balsam poplar. Stands of white spruce are on level to nearly level floodplains and low river terraces. Cottonwood and balsam poplar usually occur with white spruce as a successional system. They are replaced at maturity by white spruce. Undergrowth is generally dense, consisting of high and low shrubs including American green alder, thinleaf alder, willow, rose, dogwood, Labrador tea and berry bushes. The forest floor is usually carpeted with ferns, bluejoint, fireweed, horsetails, lichens, herbs and moss. Portions of floodplains are barren during periods of low water, and some periodically flooded back-water areas contain meadows of tall grass with clumps of willow.

The Upland spruce and hardwood ecosystem is a fairly dense interior forest composed of white spruce, birch, aspen and poplar. Black spruce typically grows on north slopes and poorly drained flat areas. Root depths are shallow. Fire scars are common. White spruce occurs in mixed stands on south facing slopes and well drained soils, forming pure stands near streams. Aspen occurs in scattered stands along streams. Undergrowth consists of mosses with grasses on

drier sites and with brush on moist slopes. Typical plants are willow, alder, ferns, rose, high and low bush cranberry, raspberry, currant and horsetail.

Lowland spruce or hardwood forest is a dense to open interior lowland forest of evergreen and deciduous trees, including extensive pure stands of black spruce. Cones of black spruce open after fire and spread abundant seed, enabling black spruce to quickly invade burned areas. The stunted tamarack is associated with black spruce in the wet lowlands. The slow-growing black spruce and tamarack seldom reach a diameter of more than six inches. Rolling basins and knolls in the lowlands have a varied mixture of white spruce, black spruce, paper birch, aspen and poplar. Small bogs and muskegs are found in the depressions. Undergrowth species include willow, dwarf birch, low bush cranberry, blueberry, Labrador tea, crowberry, bearberry, cottongrass, ferns, horsetail, lichens and a thick cover of sphagnum and other mosses. Large areas burned since 1900 are covered by willow brush and very dense black spruce sapling stands.

A palustrine or muskeg and bog ecosystem is a treeless form of wetland, often developing in shallow ponds, depressions, or river margins. This low brush system is found in two areas: **Coastal:** Muskeg and bogs are usually found in wet, flat basins. Vegetation is varied, but commonly consists of a thick sphagnum moss mat, sedges, rushes, furticose lichens, cottongrass, Labrador tea, common juniper, crowberry, willow, cranberry, and blueberry. A few slow-growing, poorly formed shore pine, western hemlock or Alaska-cedar are scattered on drier sites. Shrubs are dominant over the sedge and herbaceous mat in exposed and drier areas. Ponds containing aquatic plants are often present in the peaty substrate. **Interior:** Extensive bogs are found where conditions are too wet for tree growth. Bog vegetation consists of varying amounts of sedges, sphagnum and other mosses, bog rosemary, resin birch, dwarf Arctic birch, Labrador tea, willow, cranberry, and blueberry. Localized saturated flats have large patches of cottongrass tussocks. Areas of tall willow, alder brush, and widely spaced dwarf spruce and tamarack are found within and around the marginal higher portions. Bog surfaces often have uneven, string-like ridges. These surfaces are too wet for shrubs.

¹The terrestrial ecosystems as described are those found on the Map of the Major Ecosystems of Alaska, produced by the Joint Federal-State Land Use Planning Commission for Alaska (July 1973), and can be purchased from U.S. Geological Survey.

High brush are dense to open deciduous brush systems. Coastal alder thickets are extensive Sitka alder thickets often having a well developed grass and fern layer below. Associated species are bluejoint, devilsclub, willow, Sitka mountain ash, currant, thimbleberry, salmonberry, blueberry and huckleberry. Floodplain thickets are similar from the rivers of the southern coastal areas to the broad-braided rivers north of the Brooks Range. They develop quickly on newly exposed alluvial deposits that are periodically flooded. The dominant shrubs are willows and alders. Associated shrubs are dogwood, prickly rose, raspberry, buffaloberry and high bush cranberry. Birch-alder-willow thickets are found near timberline in interior Alaska. They consist of resin birch, American green alder, thinleaf alder, and several willow species. Thickets may be extremely dense, or open and interspersed with reindeer lichens, low heath type shrubs, or patches of alpine tundra ecosystems. Other associated species are Sitka alder, bearberry, crowberry, Labrador tea, spirea, blueberry, and mountain cranberry.

Moist tundra ecosystems usually form a complete ground cover and are extremely productive during the growing season. They vary from almost continuous and uniformly developed cottongrass tussocks with sparse growth of other sedges and dwarf shrubs to stands where tussocks are scarce or lacking and dwarf shrubs are dominant. Associated species are arctagrostis, bluejoint, tufted hairgrass, mosses, alpine azalea, wood rush, mountain-avens, bistort, low-growing willows, dwarf birch, Labrador tea, green alder, Lapland rosebay, blueberry and mountain cranberry. Cottongrass-tussock type is the most widespread of all vegetative systems of Arctic Alaska. In the northern area, it is often dissected by polygonal patterns created by underlying ice wedges. On the Aleutian Islands moist tundra contains tall grass meadows interspersed with dense low heath shrubs.

Wet tundra is usually found in areas with little topographical relief. Standing water is almost always present in summer and numerous shallow lakes are common. In northern areas, permafrost is close to the surface, and microrelief features in the forms of polygons and peat ridges are formed by this action. Dominant vegetation is sedge and cottongrass, usually forming a mat rather than tussocks. A few woody and herbaceous plants occur on the drier sites above the water table. Rooted aquatic plants occur along shorelines and in shallower lake waters. Associated plants are lichens, mosses, low-growing willows, dwarf birch, Labrador tea, cinquefoil, beach rye, low bush cranberry and occasionally bog cranberry. Characteristic rooted aquatic plants are bur reed, pond weed, pendent grass, and mare's tail.

Alpine tundra systems are found on all mountain ranges of Alaska, and on exposed ridges in the Arctic and southwestern coastal areas. The system consists of barren rocks and rubble interspersed with low plant mats, both herbaceous and shrubby. White mountain-avens are dominant in northern areas and the Alaska Range and may cover entire ridges and slopes along with many low growing herbs, such as moss-campion, black oxytropis, Arctic sandwort, and several lichens, grasses and sedges. In southeastern coastal mountains and the Aleutians, the most prominent plants are low heath shrubs, especially cassiope and mountain-heaths. They are most abundant where accumulated snow lingers into late spring. On the Aleutian Islands, this system consists primarily of crowberry, bog blueberry, mountain cranberry, alpine-azalea and several dwarf willows. Associated species are resin birch, dwarf Arctic birch, cassiope, crowberry, alpine-azalea, Labrador tea, mountain heath, rhododendron, Arctic willow, dwarf blueberry, bog blueberry, and cranberry.

The **freshwater ecosystem** is composed of lakes, rivers, glaciers, and icefields. Alaska's **glaciers** originate in mountainous areas with heavy precipitation where accumulation of one season's snowfall is not entirely melted before snow falls the succeeding winter. Major glacier forms represented include cirque, drift, valley, piedmont and icefields. Icefields are largest, followed by large valley and piedmont glaciers. Alpine tundra ecosystems are closely associated with the glacier system. High brush ecosystems occur along valley and piedmont glaciers. Some vegetation systems grow on glacial moraines atop the ice. Algae species occur on glaciers.

All flowing freshwater in Alaska is part of the **riverine system**. Riverine systems of Alaska are of two broad types, glacial and nonglacial. Most glacial rivers are in the southeast and southcentral regions. Characteristics of glacier runoff include high year-round average flows, peak flows in midsummer, distinct day-to-night differences in volume, high silt content of stream water and occasional outburst floods. All have pronounced effects on Alaskan streams. Nonglacial streams are typical in the Brooks Mountain Range, Arctic Slope and portions of interior and western Alaska. High rates of runoff and low temperatures cause Alaska streams to be less productive than waters at lower latitudes.

Alaska's **lacustrine** system includes more than three million lakes. In deep lakes, circulation is usually restricted; stratification is evident and a relatively large portion of the water mass is below the photosynthetic zone. Production of organic material in shallow lakes is higher because more water is circulated within the photosynthetic zone. Shallow lakes usually have aquatic plants in or near shore areas. Two major forms of plants are (1) rooted submerged aquatics such as bur reed, pond weed and other species, and (2) rooted emergent aquatics which are highly productive, resulting in accumulations of large amounts of top and root material along the shores.

The **marine system** encompasses ice affected and wave beaten coasts, the continental shelf and the ocean. Ice affected coasts are bordered by sea ice in winter, and ice may be offshore in summer. Marine plants grow in the lower strata of sea ice during early spring. These plants support abundant marine life. On the wave beaten coast, waves are the primary mixing agents. Wide, short estuaries support larvae and immature stages of most marine animal species. Plant production is high. The offshore zone to 200 meters depth contains one-celled plants which are the base of the marine food chain. Plant growth is dependent upon light received and the presence of nutrients. (Mixing by waves and currents brings nutrients to the lighted zone.) In the Bering-Chukchi Seas, one-celled plants develop in lower sea-ice strata. Shelf depths are shallow enough that abundant marine life occurs on the bottom. Dead marine life is consumed on the bottom by various animals, and is recycled to nutrients by enzymatic and bacterial action. Ocean areas are those where depth is greater than 200 meters. They have low plant productivity due to minimum mixing of water. As an exception, high productivity does occur in the Arctic Ocean due to plant growth in the lower layers of sea ice. In the oceanic system, plant and animal life is normally consumed between the surface and mid-depths. Little animal life occurs at the bottom where animals consume primarily dead organic matter.

The **estuarine system** includes fiord and tide mixed estuaries. Fiord estuaries are coasts eroded by glaciers in past ice ages. They are protected from direct pounding of sea waves. Water stratifies, which limits high plant production to early spring and otherwise maintains low production during the summer. In tidal mixed estuaries tides are the primary mixing force. Depths are generally less than 200 feet. In northern Cook Inlet, plant growth is inhibited by heavy sedimentation. Tidal action provides sufficient mixing of the water to produce high plant production in Kachemak Bay and southern Cook Inlet.

Reference occurrence of species by Alaskan ecosystems are cited after the authorities for nomenclature list at the end of each wildlife or fish group. The code X in the ecosystem indicates the species occurs there at some time. No effort was made to mark abundance within ecosystems. Some species have been seen so rarely it was impossible to mark ecosystem occurrence; in those cases an asterisk (*) appears after the name.

LONG-EARED OWL



TABLE 6
BIRDS OF ALASKA, Occurrence by Ecosystem

— <i>Marine</i>	— <i>Estuarine</i>	— <i>Riverine</i>	— <i>Lacustrine</i>	— <i>Palustrine</i>	— <i>Hemlock-Spruce</i>	— <i>Spruce-Poplar</i>	— <i>Upland spruce</i>	— <i>Lowland spruce</i>	— <i>Muskeg bog</i>	— <i>High brush</i>	— <i>Moist tundra-mainland</i>	— <i>Wet tundra</i>	— <i>Alpine tundra-mainland</i>	— <i>Moist tundra-Aleutian</i>	— <i>Alpine tundra-Aleutian</i>	— <i>Glaciers and ice</i>
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ORDER GAVIIFORMES

Common Loon <i>Gavia immer</i>	X	X		X		X										
Yellow-billed Loon <i>Gavia adamsii</i>	X	X		X	X							X				
Arctic Loon <i>Gavia arctica</i>	X	X		X	X	X					X		X			
Red-throated Loon <i>Gavia stellata</i>	X	X		X	X	X					X		X			

ORDER PODICIPEDIFORMES

Red-necked Grebe <i>Podiceps grisegena</i>	X	X	X	X	X	X				X		X				
Horned Grebe <i>Podiceps auritus</i>	X	X		X		X	X	X		X		X				
Western Grebe <i>Aechmophorus occidentalis</i>	X	X														
Pied-billed Grebe <i>Podilymbus podiceps</i>	X	X		X												

ORDER PROCELLARIIFORMES

Short-tailed Albatross <i>Diomedea albatrus</i>	X															
Black-footed Albatross <i>Diomedea nigripes</i>	X															
Laysan Albatross <i>Diomedea immutabilis</i>	X															
Northern Fulmar <i>Fulmarus glacialis</i>	X															
Pink-footed Shearwater <i>Puffinus creatopus</i>	X															
Flesh-footed Shearwater <i>Puffinus carneipes</i>	X															
New Zealand Shearwater <i>Puffinus bulleri</i>	X															
Sooty Shearwater <i>Puffinus griseus</i>	X															

Table 6 – 2

— Marine
 — Estuarine
 — Riverine
 — Lacustrine
 — Palustrine
 — Hemlock-Spruce
 — Spruce-Poplar
 — Upland spruce
 — Lowland spruce
 — Muskeg-bog
 — High brush
 — Moist tundra-mainland
 — Wet tundra
 — Alpine tundra-mainland
 — Moist tundra-Aleutian
 — Alpine tundra-Aleutian
 — Glaciers and ice

ORDER PROCELLARIIFORMES (Cont.)

Short-tailed Shearwater <i>Puffinus tenuirostris</i>	X
Manx Shearwater <i>Puffinus puffinus</i>	X
Scaled Petrel <i>Pterodroma inexpectata</i>	X
Cook's Petrel <i>Pterodroma cookii</i>	X
Fork-tailed Storm-Petrel <i>Oceanodroma furcata</i>	X
Leach's Storm-Petrel <i>Oceanodroma leucorhoa</i>	X

ORDER PELECANIFORMES

Double-crested Cormorant <i>Phalacrocorax auritus</i>	X	X	X	X	X
Brandt's Cormorant <i>Phalacrocorax penicillatus</i>	X				X
Pelagic Cormorant <i>Phalacrocorax pelagicus</i>	X				
Red-faced Cormorant <i>Phalacrocorax urile</i>	X				

ORDER CICONIIFORMES

Great Blue Heron <i>Ardea herodias</i>	X	X	X	X	X
Chinese Egret <i>Egretta eulophotes</i> * (Auth. 4)	X				
Snowy Egret <i>Egretta thula</i> *					
American Bittern <i>Botaurus lentiginosus</i>	X	X	X		

ORDER ANSERIFORMES

Whooper Swan <i>Olor cygnus</i>	X	X			
Whistling Swan <i>Olor columbianus</i>	X	X	X	X	X

Table 6 — 3

	<i>- Marine</i>	<i>- Estuarine</i>	<i>- Riverine</i>	<i>- Lacustrine</i>	<i>- Palustrine</i>	<i>- Hemlock-Spruce</i>	<i>- Spruce-Poplar</i>	<i>- Upland spruce</i>	<i>- Lowland spruce</i>	<i>- Muskeg bog</i>	<i>- High brush</i>	<i>- Moist tundra-mainland</i>	<i>- Wet tundra</i>	<i>- Alpine tundra-mainland</i>	<i>- Moist tundra-Aleutian</i>	<i>- Alpine tundra-Aleutian</i>	<i>- Glaciers and ice</i>
ORDER ANSERIFORMES (Cont.)																	
Trumpeter Swan <i>Olor buccinator</i>	X	X	X	X								X					
Canada Goose, Vancouver <i>Branta canadensis fulva</i>	X	X	X	X	X							X					
Canada Goose, Dusky <i>Branta canadensis occidentalis</i>	X	X			X							X	X				
Canada Goose, Aleutian <i>Branta canadensis leucopareia</i>	X	X		X	X							X				X	
Canada Goose, Cackling <i>Branta canadensis minima</i>	X	X		X	X							X		X			
Canada Goose, Taverner's <i>Branta canadensis taverneri</i>	X	X	X	X								X		X	X		
Canada Goose, Lesser <i>Branta canadensis parvipes</i>	X	X	X	X			X					X	X	X	X	X	
Brant <i>Branta bernicla</i>	X	X			X												
Emperor Goose <i>Philacte canagica</i>	X	X		X	X												
White-fronted Goose <i>Anser albifrons</i>		X		X	X							X		X	X		X
Bean Goose <i>Anser fabalis</i>		X	X														
Snow Goose <i>Chen caerulescens</i>	X	X	X									X		X	X		X
Ross' Goose <i>Chen rossii</i>		X			X												
Mallard <i>Anas platyrhynchos</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Black Duck <i>Anas rubripes</i>		X			X												
Spotbill Duck <i>Anas poecilorhyncha</i> (Auth. 4)			X														
Gadwall <i>Anas strepera</i>	X	X	X	X	X							X					
Pintail <i>Anas acuta</i>		X	X	X	X							X		X	X		X
Falcated Teal <i>Anas falcata</i>				X												X	

Table 6 — 4

	<i>- Marine</i>	<i>- Estuarine</i>	<i>- Riverine</i>	<i>- Lacustrine</i>	<i>- Palustrine</i>	<i>- Hemlock-Spruce</i>	<i>- Spruce-Poplar</i>	<i>- Upland spruce</i>	<i>- Lowland spruce</i>	<i>- Muskeg-bog</i>	<i>- High brush</i>	<i>- Moist tundra-mainland</i>	<i>- Wet tundra</i>	<i>- Alpine tundra-mainland</i>	<i>- Alpine tundra-Aleutian</i>	<i>- Glaciers and ice</i>
ORDER ANSERIFORMES (Cont.)																
Green-winged Teal <i>Anas crecca</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Baikal Teal <i>Anas formosa</i>	X	X			X											
Garganey <i>Anas querquedula</i> (Auth. 4)					X								X			
Blue-winged Teal <i>Anas discors</i>		X	X	X	X						X					
Cinnamon Teal <i>Anas cyanoptera</i>		X		X												
Northern Shoveler <i>Anas clypeata</i>		X	X	X	X						X	X	X			
European Wigeon <i>Anas penelope</i>		X	X	X	X							X	X			
American Wigeon <i>Anas americana</i>		X	X	X	X							X	X			
Wood Duck <i>Aix sponsa</i>				X												
Redhead <i>Aythya americana</i>		X	X	X	X						X		X			
Common Pochard <i>Aythya ferina</i>			X													
Ring-necked Duck <i>Aythya collaris</i>			X		X	X							X			
Canvasback <i>Aythya valisineria</i>		X	X		X	X							X			
Greater Scaup <i>Aythya marila</i>		X	X		X	X						X	X			
Lesser Scaup <i>Aythya affinis</i>		X	X	X	X	X							X			
Tufted Duck <i>Aythya fuligula</i>			X		X											
Common Goldeneye <i>Bucephala clangula</i>		X	X	X	X	X	X	X	X			X		X		
Barrow's Goldeneye <i>Bucephala islandica</i>		X	X	X	X	X	X	X	X			X				
Bufflehead <i>Bucephala albeola</i>		X	X	X	X	X	X	X	X		X		X			

Table 6 – 5

	<i>- Marine</i>	<i>- Estuarine</i>	<i>- Riverine</i>	<i>- Lacustrine</i>	<i>- Palustrine</i>	<i>- Hemlock-Spruce</i>	<i>- Spruce-Poplar</i>	<i>- Upland spruce</i>	<i>- Lowland spruce</i>	<i>- Muskeg bog</i>	<i>- High brush</i>	<i>- Moist tundra-mainland</i>	<i>- Wet tundra</i>	<i>- Alpine tundra-mainland</i>	<i>- Moist tundra-Aleutian</i>	<i>- Alpine tundra-Aleutian</i>	<i>- Glaciers and ice</i>
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ORDER ANSERIFORMES (Cont.)

Oldsquaw <i>Clangula hyemalis</i>	X	X	X	X	X						X	X	X				
Harlequin Duck <i>Histrionicus histrionicus</i>	X	X	X			X	X				X						
Steller's Eider <i>Polypticta stellaris</i>	X	X			X								X				
Common Eider <i>Somateria mollissima</i>	X	X			X												
King Eider <i>Somateria spectabilis</i>	X	X	X	X	X							X		X			
Spectacled Eider <i>Somateria fischeri</i>	X				X							X		X			
White-winged Scoter <i>Melanitta deglandi</i>	X	X	X	X	X		X		X		X						
Surf Scoter <i>Melanitta perspicillata</i>	X	X	X	X	X		X		X		X						
Black Scoter <i>Melanitta nigra</i>	X	X	X	X	X							X		X			
Ruddy Duck <i>Oxyura jamaicensis</i>	X	X			X												
Hooded Merganser <i>Lophodytes cucullatus</i>	X	X	X	X	X	X											
Smew <i>Mergus albellus</i>				X													
Common Merganser <i>Mergus merganser</i>	X	X	X	X		X			X			X					
Red-breasted Merganser <i>Mergus serrator</i>	X	X	X	X	X						X		X		X		

ORDER FALCONIFORMES

Goshawk <i>Accipiter gentilis</i>		X			X	X	X	X	X	X	X	X					
Sharp-shinned Hawk <i>Accipiter striatus</i>		X			X	X	X	X	X	X	X	X	X	X			
Red-tailed Hawk <i>Buteo jamaicensis</i>						X	X	X	X	X	X	X					
Swainson's Hawk <i>Buteo swainsoni</i>							X	X	X	X	X	X					

Table 6 — 6

	<i>- Marine</i>	<i>- Estuarine</i>	<i>- Riverine</i>	<i>- Lacustrine</i>	<i>- Palustrine</i>	<i>- Hemlock-Spruce</i>	<i>- Spruce-Poplar</i>	<i>- Upland spruce</i>	<i>- Lowland spruce</i>	<i>- Muskog bog</i>	<i>- High brush</i>	<i>- Moist tundra-mainland</i>	<i>- Wet tundra</i>	<i>- Alpine tundra-mainland</i>	<i>- Moist tundra-Aleutian</i>	<i>- Alpine tundra-Aleutian</i>	<i>- Glaciers and ice</i>
ORDER FALCONIFORMES (Cont.)																	
Rough-legged Hawk <i>Buteo lagopus</i>				X					X		X	X					
Golden Eagle <i>Aquila chrysaetos</i>								X	X		X				X		
White-tailed Eagle <i>Haliaeetus albicilla</i>													X				
Bald Eagle <i>Haliaeetus leucocephalus</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Steller's Sea Eagle <i>Haliaeetus pelagicus</i>	X	X														X	
Marsh Hawk <i>Circus cyaneus</i>		X		X	X						X		X	X	X	X	
Osprey <i>Pandion haliaetus</i>	X	X	X	X													
Gyrfalcon <i>Falco rusticolus</i>			X		X						X		X	X	X	X	
Peregrine Falcon, American <i>Falco peregrinus anatum</i>	X	X	X			X											
Peregrine Falcon, Peale's <i>Falco peregrinus pealei</i>	X	X				X											
Peregrine Falcon, Tundra <i>Falco peregrinus tundrensis</i>			X			X											
Merlin <i>Falco columbarius</i>	X	X				X	X	X	X	X	X	X					X
American Kestrel <i>Falco sparverius</i>		X				X	X	X	X	X	X	X					
ORDER GALLIFORMES																	
Blue Grouse <i>Dendragapus obscurus</i>						X			X	X						X	
Spruce Grouse <i>Canachites canadensis</i>						X	X	X	X	X	X						
Ruffed Grouse <i>Bonasa umbellus</i>						X				X	X						
Willow Ptarmigan <i>Lagopus lagopus</i>						X			X	X	X	X	X	X	X	X	
Rock Ptarmigan <i>Lagopus mutus</i>									X	X	X	X	X	X	X	X	

Table 6-7

	- Marine	- Estuarine	- Riverine	- Lacustrine	- Palustrine	- Hemlock-Spruce	- Spruce-Poplar	- Upland spruce	- Lowland spruce	- Muskeg-bog	- High brush	- Moist tundra-mainland	- Wet tundra	- Alpine tundra-mainland	- Alpine tundra-Aleutian	- Glaciers and ice
ORDER GALLIFORMES (Cont.)																
White-tailed Ptarmigan <i>Lagopus leucurus</i>											X	X	X	X		X
Sharp-tailed Grouse <i>Pediocetes phasianellus</i>								X	X		X	X				
ORDER GRUIFORMES																
Common Crane <i>Grus grus</i> *																
Sandhill Crane <i>Grus canadensis</i>	X			X							X	X	X			X
Sora <i>Porzana carolina</i>						X										
European Coot <i>Fulica atra</i> *																
American Coot <i>Fulica americana</i>	X			X			X									
ORDER CHARADRIIFORMES																
Black Oystercatcher <i>Haematopus bachmani</i>	X															
Ringed Plover <i>Charadrius hiaticula</i>		X										X				
Semipalmated Plover <i>Charadrius semipalmatus</i>	X	X	X	X	X											
Little Ringed Plover <i>Charadrius dubius</i> * (Auth. 4)																
Mongolian Plover <i>Charadrius mongolus</i>	X	X				X										
Killdeer <i>Charadrius vociferus</i>		X	X	X	X						X	X				
Dotterel <i>Eudromias morinellus</i>													X			
American Golden Plover <i>Pluvialis dominica</i>	X	X				X						X	X	X		
Black-bellied Plover <i>Pluvialis squatarola</i>	X	X				X						X	X	X		

Table 6 - 8

—Marine —Estuarine —Riverine —Lacustrine —Palustrine —Hemlock-Spruce
 —Spruce-Poplar —Upland spruce —Lowland spruce —Muskeg-bog
 —High brush —Moist tundra-mainland —Wet tundra —Alpine tundra
 —Moist tundra-mainland —Alpine tundra-Aleutian —Glaciers and Ice

ORDER CHARADRIIFORMES (Cont.)

Black-tailed Godwit <i>Limosa limosa</i>	X						
Hudsonian Godwit <i>Limosa haemastica</i>	X	X		X	X		
Bar-tailed Godwit <i>Limosa lapponica</i>	X				X	X	
Marbled Godwit <i>Limosa fedoa</i>	X						
Eskimo Curlew <i>Numenius borealis</i> *							
Whimbrel <i>Numenius phaeopus</i>			X		X	X	
Bristle-thighed Curlew <i>Numenius tahitiensis</i>	X				X	X	
Far Eastern Curlew <i>Numenius madagascariensis</i> (Auth. 4)		X					
Upland Sandpiper <i>Bartramia americana</i>					X	X	
Redshank <i>Tringa totanus</i>	X						
Marsh Sandpiper <i>Tringa stagnatilis</i> * (Auth. 4)							
Greenshank <i>Tringa nebularia</i>		X					
Greater Yellowlegs <i>Tringa melanoleuca</i>	X	X	X	X	X	X	X
Lesser Yellowlegs <i>Tringa flavipes</i>	X	X	X	X	X	X	X
Solitary Sandpiper <i>Tringa solitaria</i>		X	X	X	X	X	X
Wood Sandpiper <i>Tringa glareola</i>		X			X	X	X
Willet <i>Catoptrophorus semipalmatus</i> *							
Terek Sandpiper <i>Xenus cinereus</i> (Auth. 4)	X	X					

Table 6 — 9

— *Marine*
 — *Estuarine*
 — *Riverine*
 — *Lacustrine*
 — *Palustrine*
 — *Hemlock Spruce*
 — *Spruce-Poplar*
 — *Upland spruce*
 — *Lowland spruce*
 — *Muskeg bog*
 — *High brush*
 — *Moist tundra-mainland*
 — *Wet tundra*
 — *Alpine tundra-mainland*
 — *Moist tundra Aleutian*
 — *Alpine tundra Aleutian*
 — *Glaciers and ice*

ORDER CHARADRIIFORMES (Cont.)

Common Sandpiper <i>Tringa hypoleucos</i> (Auth. 4)	X	X	X			
Spotted Sandpiper <i>Actitis macularia</i>	X	X	X	X	X	X
Polynesian Tattler <i>Heteroscelus brevipes</i>	X	X				
Wandering Tattler <i>Heteroscelus incanus</i>	X	X	X			
Ruddy Turnstone <i>Arenaria interpres</i>	X	X	X			X
Black Turnstone <i>Arenaria melanocephala</i>	X	X	X			X
Wilson's Phalarope <i>Steganopus tricolor</i>				X		X
Northern Phalarope <i>Lobipes lobatus</i>	X	X		X	X	X
Red Phalarope <i>Phalaropus fulicarius</i>	X	X		X	X	X
Common Snipe <i>Gallinago gallinago</i>		X		X	X	X
European Jacksnipe <i>Lymnocryptes minimus</i> *						
Short-billed Dowitcher <i>Limnodromus griseus</i>	X	X		X	X	X
Long-billed Dowitcher <i>Limnodromus scolopaceus</i>	X	X		X	X	X
Surfbird <i>Aphriza virgata</i>	X	X				X
Great Knot <i>Calidris tenuirostris</i>			X			
Red Knot <i>Calidris canutus</i>			X			X
Sanderling <i>Calidris alba</i>	X	X			X	
Semipalmated Sandpiper <i>Calidris pusilla</i>		X	X	X		X
Western Sandpiper <i>Calidris mauri</i>		X	X	X	X	X

Table 6 — 10

	<i>- Marine</i>	<i>- Estuarine</i>	<i>- Riverine</i>	<i>- Lacustrine</i>	<i>- Palustrine</i>	<i>- Hemlock-Spruce</i>	<i>- Spruce-Poplar</i>	<i>- Upland spruce</i>	<i>- Lowland spruce</i>	<i>- Muskeg-bog</i>	<i>- High brush</i>	<i>- Moist tundra-mainland</i>	<i>- Wet tundra</i>	<i>- Alpine tundra-mainland</i>	<i>- Moist tundra-Aleutian</i>	<i>- Alpine tundra-Aleutian</i>	<i>- Glaciers and ice</i>
Rufous-necked Sandpiper <i>Calidris ruficollis</i>		X										X					
Little Stint <i>Calidris minuta</i> *													X				
(Auth. 4)																	
Temminck's Stint <i>Calidris temminckii</i>			X														
(Auth. 4)																	
Long-toed Stint <i>Calidris subminuta</i>			X														
Least Sandpiper <i>Calidris minutilla</i>	X			X	X							X	X		X		
White-rumped Sandpiper <i>Calidris fuscicollis</i>		X											X				
Baird's Sandpiper <i>Calidris bairdii</i>	X	X		X	X							X	X				
Pectoral Sandpiper <i>Calidris melanotos</i>		X		X	X							X		X			
Sharp-tailed Sandpiper <i>Calidris acuminata</i>		X		X	X							X		X			
Rock Sandpiper <i>Calidris ptilocnemis</i>		X	X										X				
Dunlin <i>Calidris alpina</i>		X	X			X							X		X		
Curlew Sandpiper <i>Calidris ferruginea</i>			X										X				
Spoon-bill Sandpiper <i>Eurynorhynchus pygmeus</i>			X														
Broad-billed Sandpiper <i>Limicola falcinellus</i> *																	
Stilt Sandpiper <i>Micropalama himantopus</i>		X		X	X								X				
Buff-breasted Sandpiper <i>Tryngites subruficollis</i>			X										X				
Ruff <i>Philomachus pugnax</i>			X											X			
Pomarine Jaeger <i>Stercorarius pomarinus</i>	X	X		X	X								X				

Table 6 – 11

	<i>– Mariné</i>	<i>– Estuarine</i>	<i>– Riverine</i>	<i>– Lacustrine</i>	<i>– Palustrine</i>	<i>– Hemlock-Spruce</i>	<i>– Spruce-Poplar</i>	<i>– Upland spruce</i>	<i>– Lowland spruce</i>	<i>– Muskeg bog</i>	<i>– High brush</i>	<i>– Moist tundra-mainland</i>	<i>– Wet tundra</i>	<i>– Alpine tundra-mainland</i>	<i>– Alpine tundra-Aleutian</i>	<i>– Glaciers and ice</i>
ORDER CHARADRIIFORMES (Cont.)																
Parasitic Jaeger <i>Stercorarius parasiticus</i>	X	X		X	X					X		X	X			
Long-tailed Jaeger <i>Stercorarius longicaudus</i>	X	X										X	X			
South Polar Skua <i>Catharacta maccormicki</i>		X														
Glaucous Gull <i>Larus hyperboreus</i>	X	X	X	X	X							X	X			
Glaucous-winged Gull <i>Larus glaucescens</i>	X	X	X	X	X	X						X				
Slaty-backed Gull <i>Larus schistisagus</i>		X	X													
Western Gull <i>Larus occidentalis</i>		X	X													
Herring Gull <i>Larus argentatus</i>		X	X	X	X	X	X	X	X			X	X			
Thayer's Gull <i>Larus thayeri</i>		X	X	X	X											
California Gull <i>Larus californicus</i>		X	X													
Ring-billed Gull <i>Larus delawarensis</i>		X	X													
Mew Gull <i>Larus canus</i>		X	X	X	X	X						X	X			
Black-headed Gull <i>Larus ridibundus</i>		X	X													
Franklin's Gull <i>Larus pipixcan</i>		X	X													
Bonaparte's Gull <i>Larus philadelphia</i>		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Ivory Gull <i>Pagophila eburnea</i>		X														
Black-legged Kittiwake <i>Rissa tridactyla</i>		X	X													
Red-legged Kittiwake <i>Rissa brevirostris</i>		X														
Ross' Gull <i>Rhodostethia rosea</i>		X														

Table 6 – 12

	—Marine	—Estuarine	—Riverine	—Lacustrine	—Palustrine	—Hemlock-Spruce	—Spruce-Poplar	—Upland spruce	—Lowland spruce	—Muskeg-bog	—High brush	—Moist tundra-mainland	—Wet tundra	—Alpine tundra-mainland	—Moist tundra-Aleutian	—Alpine tundra-Aleutian	—Glaciers and ice
ORDER CHARADRIIFORMES (Cont.)																	
Sabine's Gull <i>Xema sabini</i>	X	X		X	X							X	X				
Common Tern <i>Sterna hirundo</i>	X	X															
Arctic Tern <i>Sterna paradisaea</i>	X	X	X	X	X												
Aleutian Tern <i>Sterna aleutica</i>	X	X	X			X											
Black Tern <i>Chlidonias niger</i>						X											
White-winged Black Tern <i>Chlidonias leucopterus</i> *																	
Common Murre <i>Uria aalge</i>			X														
Thick-billed Murre <i>Uria lomvia</i>			X														
Dovekie <i>Alle alle</i>			X														
Black Guillemot <i>Cephus grylle</i>			X														
Pigeon Guillemot <i>Cephus columba</i>			X														
Marbled Murrelet <i>Brachyramphus marmoratus</i>	X	X				X						X					
Kittlitz's Murrelet <i>Brachyramphus brevirostris</i>			X									X					
Ancient Murrelet <i>Synthliboramphus antiquus</i>			X			X											
Cassin's Auklet <i>Ptychoramphus aleuticus</i>			X				X										
Parakeet Auklet <i>Cyclorrhynchus psittacula</i>			X														
Crested Auklet <i>Aethia cristatella</i>			X														
Least Auklet <i>Aethia pusilla</i>			X														
Whiskered Auklet <i>Aethia pygmaea</i>			X														

Table 6-13

- Marine
- Estuarine
- Riverine
- Lacustrine
- Palustrine
- Hemlock-Spruce
- Spruce-Poplar
- Upland spruce
- Lowland spruce
- Muskeg-bog
- High brush
- Moist tundra-mainland
- Wet tundra
- Alpine tundra-mainland
- Moist tundra-Aleutian
- Alpine tundra-Aleutian
- Glaciers and ice

ORDER CHARADRIIFORMES (Cont.)

Rhinoceros Auklet <i>Cerorhinca monocerata</i>	X	X
Horned Puffin <i>Fratercula corniculata</i>	X	
Tufted Puffin <i>Lunda cirrhata</i>	X	

ORDER COLUMBIIFORMES

Band-tailed Pigeon <i>Columba fasciata</i>	X	X
Rock Dove (urban) <i>Columba livia</i>		
Mourning Dove <i>Zenaida macroura</i>	X	X

ORDER CUCULIFORMES

Common Cuckoo
*Cuculus canorus**
(Auth. 4)

Oriental Cuckoo
*Cuculus saturatus**

ORDER STRIGIFORMES

Scops Owl
*Otus scops**

Screech Owl *Otus asio*

Great Horned Owl *Bubo virginianus*

Snowy Owl *Nystes scandiaca*

Hawk Owl
Societas

Pygmy Owl *Glaucidium*

Barred Owl

Great Gray

Table 6 – 14

	– Marine	– Estuarine	– Riverine	– Lacustrine	– Palustrine	– Hemlock-Spruce	– Spruce-Poplar	– Upland spruce	– Lowland spruce	– Muskeg bog	– High brush	– Moist tundra-maintain	– Wet tundra	– Alpine tundra-maintain	– Moist tundra-Aleutian	– Alpine tundra-Aleutian	– Glaciers and ice
ORDER STRIGIFORMES (Cont.)																	
Long-eared Owl <i>Asio otus</i> *																	
Short-eared Owl <i>Asio flammeus</i>	X										X	X	X	X			
Boreal Owl <i>Aegolius funereus</i>						X	X	X	X								
Saw-whet Owl <i>Aegolius acadicus</i>						X	X	X									
ORDER CAPRIMULGIFORMES																	
Jungle Nightjar <i>Caprimulgus indicus</i> *																	
(Auth. 4)																	
Whip-poor-will <i>Caprimulgus vociferus</i> *																	
Common Nighthawk <i>Chordeiles minor</i>						X	X	X									
ORDER APODIFORMES																	
Black Swift <i>Cypseloides niger</i>						X			X	X			X				
Vaux's Swift <i>Chaetura vauxi</i>						X			X	X	X						
White-throated Needletailed Swift <i>Hirundapus caudacutus</i> *																	
White-rumped Swift <i>Apus pacificus</i>												X					
Common Swift <i>Apus apus</i> *																	
Ruby-throated Hummingbird <i>Archilochus colubris</i> *																	
Anna's Hummingbird <i>Calypte anna</i> *																	
Rufous Hummingbird <i>Selasphorus rufus</i>	X							X	X	X	X		X				
ORDER CORACIIFORMES																	
Belted Kingfisher <i>Megaceryle alcyon</i>		X	X	X	X												

Table 6 – 15

— Marine
 — Estuarine
 — Riverine
 — Lacustrine
 — Palustrine
 — Hemlock-Spruce
 — Spruce-Poplar
 — Upland spruce
 — Lowland spruce
 — Muskeg-bog
 — High brush
 — Moist tundra-mainland
 — Wet tundra
 — Alpine tundra-mainland
 — Moist tundra-Aleutian
 — Alpine tundra-Aleutian
 — Glaciers and ice

ORDER CORACIFORMES (Cont.)

Hoopoe
*Upupa epops**
 (Auth. 4)

ORDER PICIFORMES

Wryneck
*Jynx torquilla**

Common Flicker <i>Colaptes auratus</i>	X	X	X	X	X
---	---	---	---	---	---

Yellow-bellied Sapsucker <i>Sphyrapicus varius</i>	X
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Hairy Woodpecker <i>Picoides villosus</i>	X	X	X	X	X
--	---	---	---	---	---

Downy Woodpecker <i>Picoides pubescens</i>	X	X	X	X	X
---	---	---	---	---	---

Black-backed Three-toed Woodpecker <i>Picoides arcticus</i>	X	X	X
--	---	---	---

Northern Three-toed Woodpecker <i>Picoides tridactylus</i>	X	X	X	X
---	---	---	---	---

ORDER PASSERIFORMES

Eastern Kingbird <i>Tyrannus tyrannus</i>	X
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Western Kingbird <i>Tyrannus verticalis</i>	X
--	---

Say's Phoebe <i>Sayornis saya</i>	X	X	X	X
--------------------------------------	---	---	---	---

Yellow-bellied Flycatcher <i>Empidonax flaviventris</i> *	X	X	X	X
--	---	---	---	---

Alder Flycatcher <i>Empidonax alnorum</i>	X	X	X
--	---	---	---

Hammond's Flycatcher <i>Empidonax hammondi</i>	X	X	X
---	---	---	---

Dusky Flycatcher <i>Empidonax oberholseri</i> *	X	X	X
--	---	---	---

Western Flycatcher <i>Empidonax difficilis</i>	X	X	X	X
---	---	---	---	---

Western Wood Pewee <i>Contopus sordidulus</i>	X	X	X	X	X
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Table 6 – 16

	<i>- Marine</i>	<i>- Estuarine</i>	<i>- Riverine</i>	<i>- Lacustrine</i>	<i>- Palustrine</i>	<i>- Hemlock-Spruce</i>	<i>- Spruce-Poplar</i>	<i>- Upland spruce</i>	<i>- Lowland spruce</i>	<i>- Muskeg bog</i>	<i>- High brush</i>	<i>- Moist tundra-mainland</i>	<i>- Wet tundra</i>	<i>- Alpine tundra-mainland</i>	<i>- Alpine tundra-Aleutian</i>	<i>- Glaciers and ice</i>
ORDER PASSERIFORMES (Cont.)																
Olive-sided Flycatcher <i>Nuttallornis borealis</i>						X	X	X	X		X					
Skylark <i>Alauda arvensis</i>													X			
Horned Lark <i>Eremophila alpestris</i>	X												X			
Violet-green Swallow <i>Tachycineta thalassina</i>	X	X	X	X			X	X	X	X						
Tree Swallow <i>Iridoprocne bicolor</i>	X	X	X	X	X	X	X	X	X	X				X		
Bank Swallow <i>Riparia riparia</i>	X	X	X	X	X	X	X	X	X	X						
Rough-winged Swallow <i>Stelgidopteryx ruficollis</i>	X	X	X	X	X											
House Martin <i>Delichon urbica</i> *																
Barn Swallow <i>Hirundo rustica</i>	X	X	X	X	X	X	X	X	X	X						
Cliff Swallow <i>Petrochelidon pyrrhonota</i>	X	X	X	X	X	X	X	X	X	X						
Purple Martin <i>Progne subis</i>	X	X	X	X	X											
Gray Jay <i>Perisoreus canadensis</i>							X	X	X	X	X					
Steller's Jay <i>Cyanocitta stelleri</i>							X	X	X							
Black-billed Magpie <i>Pica pica</i>	X						X	X	X	X	X				X	
Common Raven <i>Corvus corax</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Northwestern Crow <i>Corvus caurinus</i>	X	X	X				X									
Clark's Nutcracker <i>Nucifraga columbiana</i>								X								
Black-capped Chickadee <i>Parus atricapillus</i>							X	X	X	X				X		
Mountain Chickadee <i>Parus gambeli</i>								X								

Table 6 – 17

ORDER PASSERIFORMES (Cont.)

	— Marine	— Estuarine	— Riverine	— Lacustrine	— Palustrine	— Hemlock-Spruce	— Spruce-Poplar	— Upland spruce	— Lowland spruce	— Muskeg-bog	— High brush	— Moist tundra-mainland	— Wet tundra	— Alpine tundra-mainland	— Moist tundra-Aleutian	— Alpine tundra-Aleutian	— Glaciers and ice
Gray-headed Chickadee <i>Parus cinctus</i>								X	X	X		X					
Boreal Chickadee <i>Parus hudsonicus</i>								X	X	X	X	X					
Chestnut-backed Chickadee <i>Parus rufescens</i>								X		X	X						
Red-breasted Nuthatch <i>Sitta canadensis</i>								X	X	X	X						
Brown Creeper <i>Certhia familiaris</i>								X	X	X	X						
Dipper <i>Cinclus mexicanus</i>			X	X	X												
Winter Wren <i>Troglodytes troglodytes</i>		X							X				X				
Brown Thrasher <i>Toxostoma rufum</i> *																	
American Robin <i>Turdus migratorius</i>	X							X	X	X	X	X	X	X	X	X	X
Eye-browed Thrush <i>Turdus obscurus</i> (Auth. 3)																	X
Dusky Thrush <i>Turdus naumanni</i> (Auth. 4)														X		X	
Fieldfare <i>Turdus pilaris</i> *																	
Varied Thrush <i>Ixoreus naevius</i>	X			X	X	X	X	X	X	X	X	X	X				
Hermit Thrush <i>Catharus guttatus</i>								X	X	X	X			X			
Swainson's Thrush <i>Catharus ustulatus</i>								X	X	X	X			X			
Gray-cheeked Thrush <i>Catharus minimus</i>								X	X	X	X	X	X	X			
Mountain Bluebird <i>Sialia currucoides</i>								X			X	X	X				
Wheatear <i>Oenanthe oenanthe</i>														X	X	X	

Table 6 – 18

	– Marine	– Estuarine	– Riverine	– Lacustrine	– Palustrine	– Hemlock-Spruce	– Spruce-Poplar	– Upland spruce	– Lowland spruce	– Muskeg-bog	– High brush	– Moist tundra-mainland	– Wet tundra	– Alpine tundra-mainland	– Moist tundra-Aleutian	– Alpine tundra-Aleutian	– Glaciers and ice
ORDER PASSERIFORMES (Cont.)																	
Bluethroat <i>Luscinia svecica</i>										X	X	X			X		
Siberian Rubythroat <i>Luscinia calliope</i>														X			
Townsend's Solitaire <i>Myadestes townsendi</i>								X	X	X		X					
Willow Warbler <i>Phylloscopus trochilus</i> *																	
Dusky Warbler <i>Phylloscopus fuscatus</i> *																	
Arctic Warbler <i>Phylloscopus borealis</i>												X					
Middendorff's Grasshopper Warbler <i>Locustella ochotensis</i> *																	
Golden-crowned Kinglet <i>Regulus satrapa</i>							X	X	X	X							
Ruby-crowned Kinglet <i>Regulus calendula</i>							X	X	X	X							
Red-breasted Flycatcher <i>Ficedula parva</i> *																	
Sooty Flycatcher <i>Muscicapa sibirica</i> *																	
Gray-spotted Flycatcher <i>Muscicapa griseisticta</i>													X				
Mountain Accentor <i>Prunella montanella</i>												X	X				
White Wagtail <i>Motacilla alba</i>												X	X		X		
Gray Wagtail <i>Motacilla cinerea</i> (Auth. 4)															X		
Yellow Wagtail <i>Motacilla flava</i>												X	X	X	X		
Water Pipit <i>Anthus spinoletta</i>	X	X	X	X								X		X	X	X	X
Indian Tree Pipit <i>Anthus hodgsoni</i> (Auth. 4)															X		

Table 6 – 19

– *Marine*
 – *Estuarine*
 – *Riverine*
 – *Lacustrine*
 – *Palustrine*
 – *Hemlock-Spruce*
 – *Spruce-Poplar*
 – *Upland spruce*
 – *Lowland spruce*
 – *Muskeg bog*
 – *High brush*
 – *Moist tundra-mainland*
 – *Wet tundra*
 – *Alpine tundra-mainland*
 – *Moist tundra-Alaskan*
 – *Alpine tundra-Alaskan*
 – *Glaciers and ice*

ORDER PASSERIFORMES (Cont.)

Pechora Pipit <i>Anthus gustavi</i>	X
Red-throated Pipit <i>Anthus cervinus</i>	X
Bohemian Waxwing <i>Bombycilla garrulus</i>	X X X X X X
Cedar Waxwing <i>Bombycilla cedrorum</i>	X X
Brown Shrike <i>Lanius cristatus</i> *	
Northern Shrike <i>Lanius excubitor</i>	X X X X X X X X X X
Starling <i>Sturnus vulgaris</i>	X X X X X X X X X
Red-eyed Vireo <i>Vireo olivaceus</i>	X
Warbling Vireo <i>Vireo gilvus</i>	X
Black-and-white Warbler <i>Mniotilla varia</i> *	
Tennessee Warbler <i>Vermivora peregrina</i>	X
Orange-crowned Warbler <i>Vermivora celata</i>	X X X X X
Yellow Warbler <i>Dendroica petechia</i>	X X X X X
Magnolia Warbler <i>Dendroica magnolia</i>	X X X
Cape May Warbler <i>Dendroica tigrina</i> *	
Yellow-rumped Warbler <i>Dendroica coronata</i>	X X X X X
Townsend's Warbler <i>Dendroica townsendi</i>	X X X X X
Black-throated Green Warbler <i>Dendroica virens</i> *	
Bay-breasted Warbler <i>Dendroica castanea</i> *	

Table 6 – 20

	— Marine	— Estuarine	— Riverine	— Lacustrine	— Palustrine	— Hemlock-Spruce	— Spruce-Poplar	— Upland spruce	— Lowland spruce	— Muskeg-bog	— High brush	— Moist tundra-mainland	— Wet tundra	— Alpine tundra-mainland	— Moist tundra-Aleutian	— Alpine tundra-Aleutian	— Glaciers and ice
ORDER PASSERIFORMES (Cont.)																	
Blackpoll Warbler <i>Dendroica striata</i>								X	X	X	X		X				
Northern Waterthrush <i>Seiurus noveboracensis</i>								X	X	X	X	X	X				
MacGillivray's Warbler <i>Oporornis tolmiei</i>										X							
Common Yellowthroat <i>Geothlypis trichas</i>				X				X	X								
Wilson's Warbler <i>Wilsonia pusilla</i>										X	X	X	X		X	X	
Canada Warbler <i>Wilsonia canadensis</i> *											X						
American Redstart <i>Setophaga ruticilla</i>											X						
Bobolink <i>Dolichonyx oryzivorus</i> *																	
Western Meadowlark <i>Sturnella neglecta</i>									X								
Yellow-headed Blackbird <i>Xanthocephalus xanthocephalus</i> *																	
Red-winged Blackbird <i>Agelaius phoeniceus</i>							X					X					
Rusty Blackbird <i>Euphagus carolinus</i>								X		X		X	X				
Brewer's Blackbird <i>Euphagus cyanocephalus</i> *																	
Common Grackle <i>Quiscalus quiscula</i>								X	X			X					
Brown-headed Cowbird <i>Molothrus ater</i>									X			X					
Western Tanager <i>Piranga ludoviciana</i>										X							
Scarlet Tanager <i>Piranga olivacea</i> *																	
Brambling <i>Fringilla montifringilla</i> *																	
Hawfinch <i>Coccothraustes coccothraustes</i> *																	

Table 6 – 21

— Marine
 — Estuarine
 — Riverine
 — Lacustrine
 — Palustrine
 — Hemlock-Spruce
 — Spruce-Poplar
 — Upland spruce
 — Lowland spruce
 — Muskeg-bog
 — High brush
 — Moist tundra-mainland
 — Wet tundra
 — Alpine tundra-mainland
 — Moist tundra-Aleutian
 — Alpine tundra-Aleutian
 — Glaciers and ice

ORDER PASSERIFORMES (Cont.)

Evening Grosbeak

*Hesperiphona vespertina**

Bullfinch

*Pyrrhula pyrrhula**

Common Rose Finch

*Carpodacus erythrinus**

(Auth. 4)

Purple Finch

*Carpodacus purpureus**

Pine Grosbeak

Pinicola enucleator

X X X X X

Gray-crowned Rosy Finch

Leucosticte tephrocotis

X X X X X X X X X X

Oriental Greenfinch

*Carduelis sinica**

Hoary Redpoll

Carduelis hornemannii

X X X X X X X X X

Common Redpoll

Carduelis flammea

X X X X X X X X X

Pine Siskin

Carduelis pinus

X X X X X

Red Crossbill

Loxia curvirostra

X

White-winged Crossbill

Loxia leucoptera

X X X X X

Savannah Sparrow

Passerculus sandwichensis

X X X X X X

Dark-eyed Junco

Junco hyemalis

X X X X X X

Tree Sparrow

Spizella arborea

X X X X X X X X X

Chipping Sparrow

Spizella passerina

X X X X X

Harris' Sparrow

Zonotrichia querula

X

White-crowned Sparrow

Zonotrichia leucophrys

X X X X X X X X X X

Golden-crowned Sparrow

Zonotrichia atricapilla

X X X X X X X X X X

Table 6 – 22

	— Marine	— Estuarine	— Riverine	— Lacustrine	— Palustrine	— Hemlock-Spruce	— Spruce-Poplar	— Upland spruce	— Lowland spruce	— Muskeg bog	— High brush	— Moist tundra-mainland	— Wet tundra	— Alpine tundra-mainland	— Moist tundra-Aleutian	— Alpine tundra-Aleutian	— Glaciers and ice
ORDER PASSERIFORMES (Cont.)																	
White-throated Sparrow <i>Zonotrichia albicollis</i> *																	
Fox Sparrow <i>Passerella iliaca</i>						X	X	X	X	X	X						
Lincoln's Sparrow <i>Melospiza lincolni</i>						X		X	X	X	X						
Song Sparrow <i>Melospiza melodia</i>	X					X	X										
Lapland Longspur <i>Calcarius lapponicus</i>	X				X					X		X	X	X	X	X	
Smith's Longspur <i>Calcarius pictus</i>												X		X			
Snow Bunting <i>Plectrophenax nivalis</i>	X				X					X		X	X	X	X	X	
McKay's Bunting <i>Plectrophenax hyperboreus</i>													X				
Little Bunting <i>Emberiza pusilla</i> *																	
Rustic Bunting <i>Emberiza rustica</i> *																	
Gray Bunting <i>Emberiza variabilis</i> *																	
Pallas' Reed Bunting <i>Emberiza pallasi</i> *																	
(Auth. 4)																	
Reed Bunting <i>Emberiza schoeniclus</i> *																	

AUTHORITIES for Nomenclature: Number 1) was used except where noted.

- 1) American Ornithologists' Union. *Check-list of North American birds*. 5th ed. Baltimore, 1957.
American Ornithologists' Union. "Thirtysecond supplement to the American Ornithologists' Union check-list of North American birds." *Auk* 90:411-419, 1973.
American Ornithologists' Union. "Thirtythird supplement to the American Ornithologists' Union check-list of North American birds." *Auk* 93:875-879, 1976.
- 2) Peterson, Roger Tory. *A Field Guide to Western Birds*. Houghton-Mifflin, Boston, 1969.
- 3) Gabrielson, Iran N., and Frederick C. Lincoln. *The Birds of Alaska*. Stackpole Co., Harrisburg, 1959.
- 4) Vaurie, C. *The birds of the palearctic fauna*. Vol. 1 *Passeriformes*. H. F. & G. Witherby, London, 1959.
Vaurie, C. *The birds of the palearctic fauna*. Vol. 2 *Non-Passeriformes*. H. F. & G. Witherby, London, 1965.

References for Ecosystem Occurrence:

- 1) Armstrong, Robert H., and the Editors of Alaska Magazine. *A Guide to the Birds of Alaska*. Alaska Northwest Publishing Company, Edmonds, In Press.
- 2) Gabrielson, Iran N., and Frederick C. Lincoln. *The Birds of Alaska*. Stackpole Co., Harrisburg, 1959.
- 3) Hanley, Kathleen, and Richard D. Tauber. *Vertebrate Species Occurrence by Habitat Type in Southeastern Alaska*. College of Forest Resources, Univ. of Washington, Seattle, 1978.
- 4) Isleib, M. E., and B. Kessel. *Birds of the North Gulf Coast – Prince William Sound Region, Alaska*. Biol. Papers Univ. Alaska No. 14. Univ. of Alaska, College, 1973.
- 5) Jarvis, Robert L., and James C. Bartonek, eds. *Management and Biology of Pacific Flyway Geese*, A Symposium sponsored by the Northwest section of the Wildlife Society. Portland, 1979.
- 6) Kessel, Brina, Robert B. Weeden, and George C. West. *Bird-finding in Interior and Southcentral Alaska*. Alaska Ornithological Society, College, 1966.
- 7) Kessel, Brina, and Daniel D. Gibson. *Status and Distribution of Alaska Birds*. Cooper Ornithological Society. Allen Press, Inc., Lawrence, 1978.
- 8) McKnight, Don, Ph.D. Personal communications. Alaska Dept. of Fish and Game, Wildlife Biologist, Juneau, 1979.
- 9) Murie, O. J. *Fauna of the Aleutian Islands and Alaska Peninsula*. N. Am. Fauna No. 61. USDI Fish and Wildlife Service, Washington, 1959.
- 10) Pitelka, F. A. "An Avifaunal Review for the Barrow Region and North Slope of Arctic Alaska." *Arctic and Alpine Research* 6:161-184, 1974.
- 11) Robbins, Chandler S., Bertel Bruun, and Herbert S. Zim. *A Guide to Field Identification Birds of North America*. Golden Press, N.Y., 1966.

NORTHERN FLYING SQUIRREL



TABLE 7
MAMMALS OF ALASKA, Occurrence by Ecosystem

	—Marine	—Estuarine	—Riverine	—Lacustrine	—Palustrine	—Hemlock-Spruce	—Spruce-Poplar	—Upland spruce	—Lowland spruce	—Muskeg-bog	—High brush	—Moist tundra-mainland	—Wet tundra	—Alpine tundra-mainland	—Moist tundra-Aleutian	—Alpine tundra-Aleutian	—Glaciers and ice
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ORDER INSECTIVORA

Masked Shrew <i>Sorex cinereus</i>	X	X	X	X	X	X	X	X	X	X	X	X	X				
St. Lawrence Island Shrew <i>Sorex jacksoni</i>												X	X	X			
Pribilof Shrew <i>Sorex pribilofensis</i>												X					
Dusky Shrew <i>Sorex obscurus</i>				X				X									
Water Shrew <i>Sorex palustris</i>	X	X	X	X								X	X	X			
Glacier Bay Water Shrew <i>Sorex alaskanus</i>					X												
Arctic Shrew <i>Sorex arcticus</i>						X	X	X	X			X	X		X	X	
Pygmy Shrew <i>Microsorex hoyi</i>						X	X	X	X			X					

ORDER CHIROPTERA

Little Brown Myotis <i>Myotis lucifugus</i>	X	X	X	X		X	X	X	X	X	X				X		
Keen's Myotis <i>Myotis keenii</i>			X			X	X	X				X			X		X
Long-legged Myotis <i>Myotis volans</i>			X			X	X					X			X		X
California Myotis <i>Myotis californicus</i>			X			X	X					X			X		X
Silver-haired Bat <i>Lasionycteris noctivagans</i>				X													
Big Brown Bat <i>Eptesicus fuscus</i>					X			X									

ORDER LAGOMORPHA

Collared Pika <i>Ochotona collaris</i>												X	X				
European Rabbit <i>Oryctolagus cuniculus</i>												X					

Table 7 – 2

— Marine
— Estuarine
— Riverine
— Lacustrine
— Palustrine
— Hemlock-Spruce
— Spruce-Poplar
— Upland spruce
— Lowland spruce
— Muskeg bog
— High brush
— Moist tundra-mainland
— Wet tundra
— Alpine tundra-mainland
— Moist tundra-Aleutian
— Alpine tundra-Aleutian
— Glaciers and ice

ORDER LAGOMORPHA (Cont.)

Showshoe Hare <i>Lepus americanus</i>	X	X	X	X	X	X	X	X
Arctic Hare <i>Lepus arcticus</i>					X	X	X	X

ORDER RODENTIA

Woodchuck <i>Marmota monax</i>		X	X	X			X	
Alaska Marmot <i>Marmota flaviventris</i>					X		X	
Hoary Marmot <i>Marmota caligata</i>							X	
Arctic Ground Squirrel <i>Spermophilus parryii</i>						X		X
Red Squirrel <i>Tamiasciurus hudsonicus</i>			X	X	X	X	X	
Northern Flying Squirrel <i>Glaucomys sabrinus</i>			X	X	X	X		
Beaver <i>Castor canadensis</i>	X	X		X	X	X	X	X
Deer Mouse <i>Peromyscus maniculatus</i>			X		X	X	X	X
Sitka Mouse <i>Peromyscus sitkensis</i>			X		X	X	X	
Bushy-tailed Woodrat <i>Neotoma cinerea</i>			X			X		X
Northern Red-backed Vole <i>Clethrionomys rutilus</i>			X	X	X	X	X	X
Gapper's Red-backed Vole <i>Clethrionomys gapperi</i> *								
Meadow Vole <i>Microtus pennsylvanicus</i>					X	X	X	
Tundra Vole <i>Microtus oeconomus</i>					X	X	X	X
Long-tailed Vole <i>Microtus longicaudus</i>	X		X	X	X	X	X	X
Coronation Island Vole <i>Microtus coronarius</i>	X			X	X		X	X

Table 7 – 3

– <i>Marine</i>	
– <i>Estuarine</i>	
– <i>Riverine</i>	
– <i>Lacustrine</i>	
– <i>Palustrine</i>	
– <i>Hemlock-Spruce</i>	
– <i>Spruce-Poplar</i>	
– <i>Upland spruce</i>	
– <i>Lowland spruce</i>	
– <i>Muskeg-bog</i>	
– <i>High brush</i>	
– <i>Moist tundra - mainland</i>	
– <i>Wet tundra</i>	
– <i>Alpine tundra - mainland</i>	
– <i>Moist tundra - Aleutian</i>	
– <i>Alpine tundra - Aleutian</i>	
– <i>Glaciers and ice</i>	

ORDER RODENTIA (Cont.)

Yellow-cheeked Vole
Microtus xanthognathus

X X X X X X

Singing Vole
Microtus miurus

X X

Insular Vole
Microtus abbreviatus

X

Muskrat
Ondatra zibethicus

X X X X X X X X X X X X X

Brown Lemming
Lemmus sibiricus

X X X X X X

Black-footed Lemming
Lemmus nigripes

X

Northern Bog Lemming
Synaptomys borealis

X X X X X X X X X

Collared Lemming
Dicrostonyx torquatus

X X X

Norway Rat
Rattus norvegicus

X X X X X X X X X X X X

House Mouse
Mus musculus

X X X X X X X X X X

Meadow Jumping Mouse
Zapus hudsonius

X X X X X X X X X

Western Jumping Mouse
Zapus princeps

X X X X X X X X

Porcupine
Erethizon dorsatum

X X X X X X X X X

ORDER CETACEA

Baird's Bottle-nosed Whale
Berardius bairdii

X

North Pacific Beaked Whale
Mesoplodon stejnegeri

X

Goose-beaked Whale
Ziphius cavirostris

X

Sperm Whale
Physeter catodon

X

White Whale or Beluga
Delphinapterus leucas

X X

Table 7 – 4

— Marine
 — Estuarine
 — Riverine
 — Lacustrine
 — Palustrine
 — Hemlock-Spruce
 — Spruce-Poplar
 — Upland spruce
 — Lowland spruce
 — Muskeg-bog
 — High brush
 — Moist tundra-mainland
 — Wet tundra
 — Alpine tundra
 — Moist tundra-Aleutian
 — Alpine tundra-Aleutian
 — Glaciers and ice

ORDER CETACEA (Cont.)

Narwhal <i>Monodon monoceros</i>	X
Striped Porpoise <i>Stenella coeruleoalba</i>	X
Northern Right-Whale Dolphin <i>Lissodelphis borealis</i>	X
Pacific White-sided Dolphin <i>Lagenorhynchus obliquidens</i>	X
Killer Whale <i>Orcinus orca</i>	X
Grampus or Rissó's Dolphin <i>Grampus griseus</i>	X
Common Pilot Whale <i>Globicephala melaena</i>	X
Harbor Porpoise <i>Phocoena phocoena</i>	X X
Dall's Porpoise <i>Phocoenoides dalli</i>	X
Gray Whale <i>Eschrichtius robustus</i>	X
Fin Whale <i>Balaenoptera physalus</i>	X
Sei Whale or Roqual <i>Balaenoptera borealis</i>	X
Little Piked or Minke Whale <i>Balaenoptera acutorostrata</i>	X
Blue or Sulphur-bottomed Whale <i>Balaenoptera musculus</i>	X
Hump-backed Whale <i>Megaptera novaeangliae</i>	X
Right Whale <i>Balaena glacialis</i>	X
Bowhead Whale <i>Balaena mysticetus</i>	X

ORDER CARNIVORA

Coyote <i>Canis latrans</i>	X X X X X X X X X X X X X X X
--------------------------------	-------------------------------

Table 7 – 5

– Marine													
– Estuarine													
– Riverine													
– Lacustrine													
– Palustrine													
– Hemlock-Spruce													
– Spruce-Poplar													
– Upland spruce													
– Lowland spruce													
– Muskeg-bog													
– High brush													
– Moist tundra-mainland													
– Wet tundra													
– Alpine tundra-mainland													
– Alpine tundra-Aleutian													
– Glaciers and ice													

ORDER CARNIVORA (Cont.)

Gray Wolf <i>Canis lupus</i>		X	X	X	X	X	X	X	X	X	X	X	X
Arctic Fox <i>Alopex lagopus</i>								X	X	X	X	X	X
Red Fox <i>Vulpes vulpes</i>			X	X	X	X	X	X	X	X	X	X	X
Black Bear <i>Ursus americanus</i>			X	X	X	X	X	X	X	X	X	X	X
Grizzly Bear and relatives <i>Ursus arctos</i>			X	X	X	X	X	X	X	X	X	X	X
Polar Bear <i>Ursus maritimus</i>	X	X							X	X			X
Raccoon <i>Procyon lotor</i>			X			X	X	X					X
Marten <i>Martes americana</i>			X	X	X	X	X				X		
Ermine <i>Mustela erminea</i>			X	X	X	X	X	X	X	X	X	X	X
Least Weasel <i>Mustela nivalis</i>				X	X	X	X	X	X	X	X	X	X
Mink <i>Mustela vision</i>	X	X	X		X	X	X	X	X	X	X	X	X
Wolverine <i>Gulo gulo</i>	X			X	X	X	X	X	X	X	X	X	X
River Otter <i>Lutra canadensis</i>	X	X	X						X				
Prince of Wales Otter <i>Lutra mira</i> (Auth. 2)		X	X										
Sea Otter <i>Enhydra lutris</i>	X	X											
Lynx <i>Felis lynx</i>				X	X	X	X	X	X	X	X	X	X

ORDER PINNIPEDIA

Northern Fur Seal <i>Callorhinus ursinus</i>	X
Northern Sea Lion <i>Eumetopias jubata</i>	X X X

Table 7 – 6

<i>- Marine</i>	<i>- Estuarine</i>	<i>- Riverine</i>	<i>- Lacustrine</i>	<i>- Palustrine</i>	<i>- Hemlock-Spruce</i>	<i>- Spruce-Poplar</i>	<i>- Upland spruce</i>	<i>- Lowland spruce</i>	<i>- Muskeg-bog</i>	<i>- High brush</i>	<i>- Moist tundra-mainland</i>	<i>- Wet tundra</i>	<i>- Alpine tundra-Aleutian</i>	<i>- Glaciers and ice</i>
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ORDER PINNIPEDIA (Cont.)

California Sea Lion <i>Zalophus californianus</i>	X	X												
Walrus <i>Odobenus rosmarus</i>	X									X	X	X	X	X
Harbor Seal <i>Phoca vitulina</i>	X	X	X	X										
Ribbon Seal <i>Phoca fasciata</i>	X	X								X	X	X	X	X
Ringed Seal <i>Phoca hispida</i>	X	X								X	X	X	X	X
Bearded Seal <i>Erignathus barbatus</i>	X	X								X	X	X	X	X
Hooded Seal <i>Cystophora cristata</i>	X													
Northern Elephant Seal <i>Mirounga angustirostris</i>		X	X				X							

ORDER ARTIODACTYLA

Roosevelt Elk <i>Cervus elephas roosevelti</i>			X							X	X		X	
Sitka Black-tailed Deer <i>Odocoileus hemionus sitkensis</i>					X			X	X	X	X	X	X	X
Moose <i>Alces alces</i>				X	X	X	X	X	X	X	X	X		X
Caribou <i>Rangifer tarandus</i>				X	X	X	X	X	X	X	X	X	X	X
Bison <i>Bison bison</i>						X	X	X	X					
Mountain Goat <i>Oreamnos americanus</i>					X			X	X				X	
Muskox <i>Ovibos moschatus</i>										X	X	X		
Dall's Sheep <i>Ovis dalli</i>						X	X			X	X		X	

Table 7 — 7

AUTHORITIES for Nomenclature: Number 1) was used except where noted.

- 1) Jones, J. Knox, Dilford C. Carter, and Hugh H. Genoways. *The Revised Checklist of North American Mammals North of Mexico*. Occasional Papers, the Museum, Texas Tech. University, Lubbock, 1975.
- 2) Hall, E. Raymond, and Keith R. Kelson. *The Mammals of North America*, Vol. I and II. The Ronald Press Company, N.Y., 1959.

References for Ecosystem Occurrence:

- 1) Alaska Department of Fish & Game. *Alaska's Wildlife and Habitat* (Blue Book). (Available from: Alaska Dept. of Fish and Game, 333 Raspberry Road, Anchorage, AK 99502), 1973.
- 2) ---- *A Fish and Wildlife Resource Inventory of the Northwest Gulf of Alaska*, 2 vol. (Available from: Alaska Dept. of Fish and Game, 333 Raspberry Road, Anchorage, AK 99502), 1975.
- 3) ---- *A Compilation of Fish and Wildlife Resource Information for the State of Alaska*, 2 vol. (Available from: Alaska Dept. of Fish and Game, 333 Raspberry Road, Anchorage, AK 99502), 1976.
- 4) ---- *A Fish and Wildlife Resource Inventory of the Cook Inlet - Kodiak Areas*. 2 vol. (Available from: Alaska Dept. of Fish and Game, 333 Raspberry Road, Anchorage, AK 99502), 1976.
- 5) ---- *A Fish and Wildlife Resource Inventory of the Alaska Peninsula, Aleutian Islands and Bristol Bay Areas*, 2 vol. (Available from: Alaska Dept. of Fish and Game, 333 Raspberry Road, Anchorage, AK 99502), 1977.
- 6) ---- *A Fish and Wildlife Resource Inventory of Southeastern Alaska*, Vol. I. (Available from: Alaska Dept. of Fish and Game, 333 Raspberry Road, Anchorage, AK 99502), 1977.
- 7) ---- *A Fish and Wildlife Resource Inventory of Western and Arctic Alaska*. (Available from: Alaska Dept. of Fish and Game, 333 Raspberry Road, Anchorage, AK 99502), 1977.
- 8) ---- *Alaska's Wildlife and Habitat* Volume II. (Available from: Alaska Dept. of Fish and Game, 333 Raspberry Road, Anchorage, AK 99502), 1978.
- 9) Hall, E. Raymond, and Keith R. Kelson. *The Mammals of North America*, Vol. I and II. The Ronald Press Company, N.Y., 1959.
- 10) Hanley, Kathleen, and Richard D. Tauber. *Vertebrate Species Occurrence by Habitat Type in Southeastern Alaska*. College of Forest Resources, Univ. of Washington, Seattle, 1978.
- 11) Manville, R. H., and S. P. Young. *Distribution of Alaskan Mammals*. Circular 211, USDI, Bureau of Sport Fisheries and Wildlife, Washington, 1965.
- 12) McKnight, Donald, Ph.D. (Personal communication.) Alaska Dept. of Fish and Game, Wildlife Biologist, Juneau, 1979.
- 13) Murie, O. J. *Fauna of the Aleutian Islands and Alaska Peninsula*. N. Am. Fauna No. 61, USDI, Fish and Wildlife Service, Washington, 1959.

SALMON

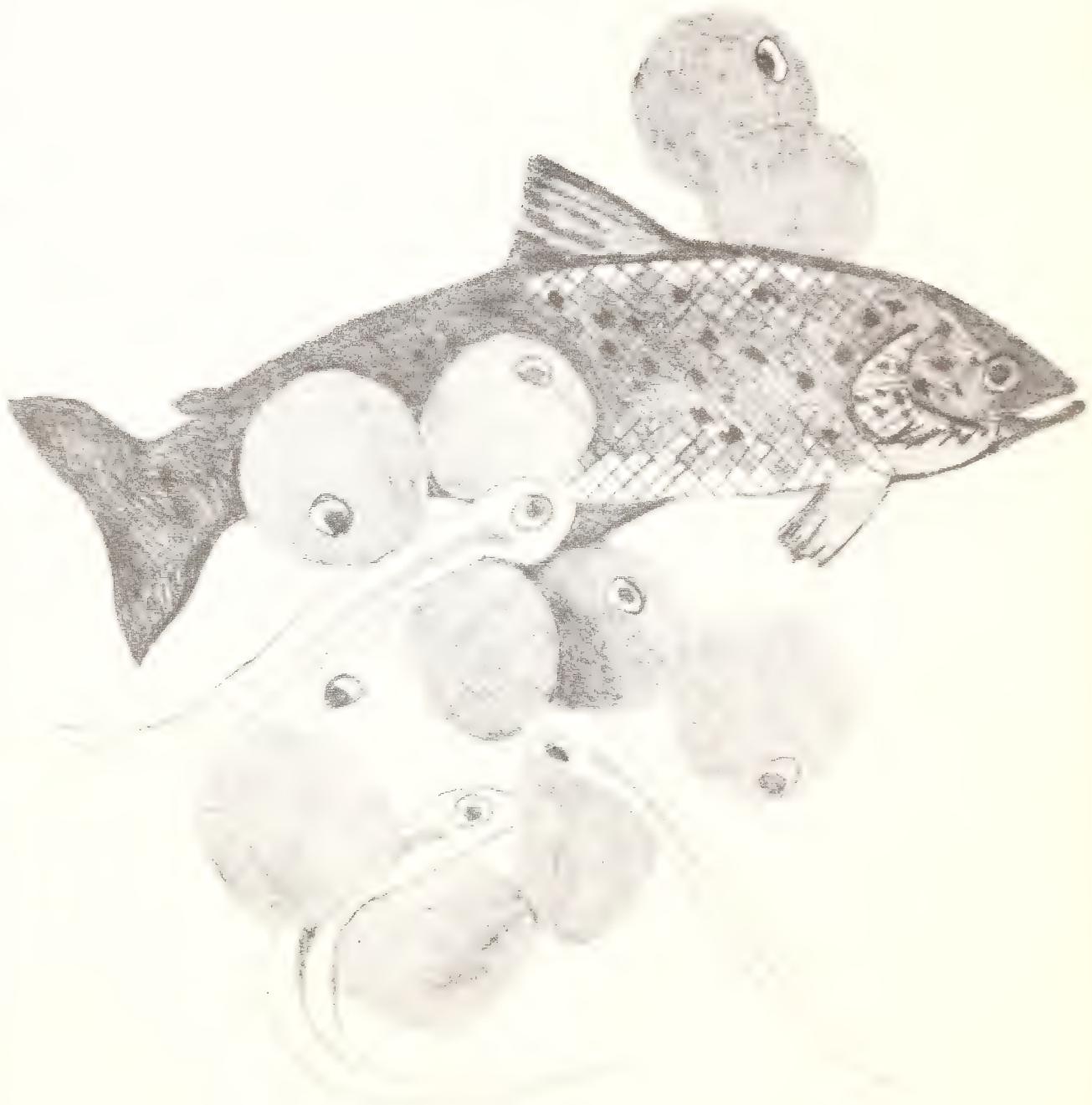


TABLE 8

FRESHWATER AND ANADROMOUS FISH OF ALASKA¹, Occurrence by Ecosystem

(See footnote, p. 91)

- Marine
- Estuarine
- Riverine
- Lacustrine
- Palustrine
- Hemlock-Spruce
- Spruce-Poplar
- Upland spruce
- Lowland spruce
- Muskeg-bog
- High brush
- Moist tundra-mainland
- Wet tundra
- Alpine tundra-mainland
- Moist tundra-Aleutian
- Alpine tundra-Aleutian
- Glaciers and ice

ORDER PETROMYZONTIFORMES
(PETROMYZONTIA: HYPEROARTII)

Pacific Lamprey <i>Entosphenus tridentatus</i>	X X X
River Lamprey <i>Lampetra ayresi</i>	X X X
Arctic Lamprey <i>Lampetra japonica</i>	X X X
Western Brook Lamprey <i>Lampetra richardsoni</i> (Auth. 7)	X
Arctic Lamprey (nonparasitic) <i>Lethenteron alaskense</i> (Auth. 8)	X

ORDER ACIPENSERIFORMES

Green Sturgeon <i>Acipenser medirostris</i> (Auth. 4, 5, 6, 8)	X X X
White Sturgeon <i>Acipenser transmontanus</i>	X X X

ORDER CLUPEIFORMES

American Shad <i>Alosa sapidissima</i> (Auth. 4, 5, 6, 9)	X X X
Pacific Herring <i>Clupea harengus pallasi</i>	X X

ORDER SALMONIFORMES

Arctic Cisco <i>Coregonus autumnalis</i>	X X X
Lake Whitefish <i>Coregonus clupeaformis</i>	X X
Bering Cisco <i>Coregonus laurettae</i>	X X
Broad Whitefish <i>Coregonus nasus</i>	X X

Table 8 – 2

Table 8 – 3

—Marine
 —Estuarine
 —Riverine
 —Lacustrine
 —Palustrine
 —Hemlock-Spruce
 —Spruce-Poplar
 —Upland spruce
 —Lowland spruce
 —Muskeg bog
 —High brush
 —Moist tundra-mainland
 —Wet tundra
 —Alpine tundra-mainland
 —Moist tundra-Aleutian
 —Alpine tundra-Aleutian
 —Glaciers and ice

ORDER SALMONIFORMES (Cont.)

Inconnu	
<i>Stenodus leucichthys</i>	X X X X
Arctic Grayling	
<i>Thymallus arcticus</i>	X X
Pond Smelt	
<i>Hypomesus olidus</i>	X X
Surf Smelt	
<i>Hypomesus pretiosus</i>	X X X
Rainbow Smelt	
<i>Osmerus mordax</i>	X X X
Longfin Smelt	
<i>Spirinchus thaleichthys</i>	X X X
Eulachon	
<i>Thaleichthys pacificus</i>	X X X
Alaska Blackfish	
<i>Dallia pectoralis</i>	X X X
Northern Pike	
<i>Esox lucius</i>	X X X

ORDER CYPRINIFORMES
(OSTARIOPHYSI – IN PART)

Lake Chub	
<i>Couesius plumbeus</i>	X X
Longnose Sucker	
<i>Catostomus catostomus</i>	X X

ORDER PERCOPSIIFORMES
(SALMOPERCAE: AMBLYOPSIFORMES)

Trout-perch	
<i>Percopsis omiscomaycus</i>	X X X

ORDER GADIFORMES
(ANACANTHINI)

Arctic Cod	
<i>Boreogadus saida</i>	X X X
(Auth. 4, 5, 6, 9)	
Saffron Cod	
<i>Eleginops gracilis</i>	X X X X
(Auth. 4, 5, 6, 9)	

Table 8 – 4

—Marine
 —Estuarine
 —Riverine
 —Lacustrine
 —Palustrine
 —Hemlock Spruce
 —Spruce-Poplar
 —Upland spruce
 —Lowland spruce
 —Muskeg bog
 —High brush
 —Moist tundra-mainland
 —Wet tundra
 —Alpine tundra-mainland
 —Moist tundra-Aleutian
 —Alpine tundra-Aleutian
 —Glaciers and ice

ORDER GADIFORMES (Cont.)
(ANACANTHINI)

Pacific Cod
Gadus macrocephalus X X X
(Auth. 4, 5, 6, 9)

Burbot
Lota lota X X X

ORDER GASTEROSTEIFORMES
(THORACOSTEI: HEMIBRANCHII:
LOPHOBRANCHII: SOLENICHTHYES)

Threespine Stickleback
Gasterosteus aculeatus X X X X X

Ninespine Stickleback
Pungitius pungitius X X X X X

ORDER PERCIFORMES
(PERCOMORPHI: ACANTHOPTERGII)

Shiner Perch
Cymatogaster aggregata X X X

Sharpnose Sculpin
Clinocottus acuticeps X X X

Coastrange Sculpin
Cottus aleuticus X X

Prickly Sculpin
Cottus asper X X X X

Slimy Sculpin
Cottus cognatus X X

Pacific Staghorn Sculpin
Leptocottus armatus X X X

Fourhorn Sculpin
Myoxocephalus quadricornis X X X

ORDER PLEURONECTIFORMES
(HETEROSOMATA)

Arctic Flounder
Liopsetta glacialis X X X
(Auth. 4, 5, 6, 9)

Starry Flounder
Platichthys stellatus X X X

AUTHORITIES for Nomenclature: Number 1) was used except where noted.

- 1) Bailey, Reeve M., et al. *A List of Common and Scientific Names of Fishes from the United States and Canada* (3rd ed.). Amer. Fish. Soc. Special Publ. No. 6, Amer. Fisheries Soc., Washington, 1970.
- 2) Hubbs, C. L., and I. C. Potter. "Distribution, Phylogeny and Taxonomy." In: Hardisty, M. W., and I. C. Potter, eds. *The Biology of Lampreys*. Vol. 2. Academic Press, N.Y., 1971.
- 3) Morrow, J. E. "A New Species of *Salvelinus* from the Brooks Range, Northern Alaska." In: *Studies on Alaskan Fishes*. Biol. Pap. Univ. Alaska No. 13. Univ. of Alaska, College, 1973.
- 4) —— *Illustrated Keys to the Fresh-water Fishes of Alaska*. Alaska Northwest Publ. Co., Edmonds, 1974.
- 5) —— *The Freshwater Fishes of Alaska*. Corvallis Environmental Research Laboratory, U.S. Environmental Protection Agency, Corvallis, 1978.
- 6) Quast, J. C., and E. L. Hall. *List of Fishes of Alaska with a Guide to some of their Literature*. NOAA Tech. Rept. NMFS SSRF-658. NOAA, Seattle, 1972.
- 7) Vladykov, V. D., and W. I. Follett. "*Lampetra richardsoni* a New Non-parasitic Species of Lamprey (Petromyzonidae) from Western North America." *J. Fish. Res. Bd. Canada* 22(1):139-158. 1965.
- 8) Vladykov, V. D., and Edward Kott. *A New Non-parasitic Species of the Holarctic Lamprey Genus Lethenteron Creaser and Hubbs, 1922, (Petromyzonidae) from Northwestern North America with Notes on Other Species of the Same Genus*. Biol. Pap. Univ. Alaska No. 19. Univ. of Alaska, College, 1978.
- 9) Wilimovsky, N. J. "List of the Fishes of Alaska." *Stanford Ichthyol. Bull.* 4:279-294. 1954.

References for Ecosystem Occurrence:

- 1) Alaska Department of Fish and Game. *A Fish and Wildlife Resource Inventory of the Northwest Gulf of Alaska*, 2 vol., (Available from: Alaska Dept. of Fish and Game, 333 Raspberry Road, Anchorage, AK 99502), 1975.
- 2) —— *A Compilation of Fish and Wildlife Resource Information for the State of Alaska*, 2 vol., (Available from: Alaska Dept. of Fish and Game, 333 Raspberry Road, Anchorage, AK 99502), 1976.
- 3) —— *A Fish and Wildlife Resource Inventory of the Cook Inlet-Kodiak Areas*, 2 vol., (Available from: Alaska Dept. of Fish and Game, 333 Raspberry Road, Anchorage, AK 99502), 1976.
- 4) —— *A Fish and Wildlife Resource Inventory of the Alaska Peninsula, Aleutian Islands and Bristol Bay Areas*, 2 vol., (Available from: Alaska Dept. of Fish and Game, 333 Raspberry Road, Anchorage, AK 99502), 1977.
- 5) —— *A Fish and Wildlife Resource Inventory of Southeastern Alaska*, Vol. I, (Available from: Alaska Dept. of Fish and Game, 333 Raspberry Road, Anchorage, AK 99502), 1977.
- 6) —— *A Fish and Wildlife Resource Inventory of Western and Arctic Alaska*. (Available from: Alaska Dept. of Fish and Game, 333 Raspberry Road, Anchorage, AK 99502), 1977.
- 7) Morrow, J. E. *Freshwater Fishes of Alaska*. Corvallis Environmental Research Laboratory, U.S. Environmental Protection Agency, Corvallis, 1978.

¹This list is limited to anadromous and freshwater species and a few marine species that frequently enter freshwaters. The many strictly marine species have been excluded. For a more complete listing, see Quast, J. C., and E. L. Hall *List of Fishes of Alaska with a Guide to Some of Their Literature*. NOAA Tech. Rept. NMFS SSRF-658. NOAA, Seattle, 1972.

SPOTTED FROG



TABLE 9

AMPHIBIANS AND REPTILES OF ALASKA, Occurrence by Ecosystem

-Marine	
-Estuarine	
-Riverine	
-Lacustrine	
-Palustrine	
-Hemlock-Spruce	
-Spruce-Poplar	
-Upland spruce	
-Lowland spruce	
-Muskeg-bog	
-High brush	
-Moist tundra-mainland	
-Wet tundra	
-Alpine tundra-mainland	
-Moist tundra-Aleutian	
-Alpine tundra-Aleutian	
-Glaciers and ice	

AMPHIBIANS

ORDER CAUDATA

Rough-skinned Newt <i>Taricha granulosa</i>	X X X	X X
Northwestern Salamander <i>Ambystoma gracile</i>	X X X	
Long-toed Salamander <i>Ambystoma macrodactylum</i>	X X X	X

ORDER ANURA

Western Toad <i>Bufo boreas</i>	X X X	X X
Spotted Frog <i>Rana pretiosa</i>	X X X	X
Wood Frog <i>Rana sylvatica</i>	X X X X X X X X X X X	

REPTILES

ORDER CHELONTIA

Pacific Leatherback Turtle <i>Dermochelys coriacea</i>	X X
---	-----

ORDER SQUAMATA

Common Gartersnake <i>Thamnophis sirtalis</i>	X X X
--	-------

AUTHORITY for Nomenclature:

1) Dowling, Herndon G. "A Classification and Checklist of Amphibians and Reptiles Found in the United States and Canada" In: 1974 Yearbook of Herpetology, H. G. Dowling, ed. American Museum of Natural History, N.Y., 1975.

References for Ecosystem Occurrence:

- 1) Cook, F. R. "Records of the Boreal Toad from the Yukon and Northern British Columbia." *The Canadian Field-Naturalist*, 91:185-186. 1977.
- 2) Hanley, Kathleen, and Richard D. Tauber. *Vertebrate Species Occurrence by Habitat Types in Southeastern Alaska*. College of Forest Resources, Univ. of Washington, Seattle, 1978.
- 3) Hodge, R. P. "The Long-toed Salamander, *Ambystoma macrodactylum*. Discovered in Alaska." *HSS Newsjournal*, 1(1):23. 1973.
- 4) ---- *Amphibians and Reptiles in Alaska, the Yukon and Northwest Territories*. Alaska Northwest Publishing Company, Anchorage, 1976.
- 5) ---- "Geographic Distribution: *Dermochelys coriacea*." *SSAR Herpetological Review*, 10(3):102. 1979.
- 6) Miller, J. D. "An Extension of the Range of the Northern Long-toed Salamander, *Ambystoma macrodactylum*, in Alaska." *The Canadian Field-Naturalist*, 90:81-82. 1976.

DUNGENESS CRAB

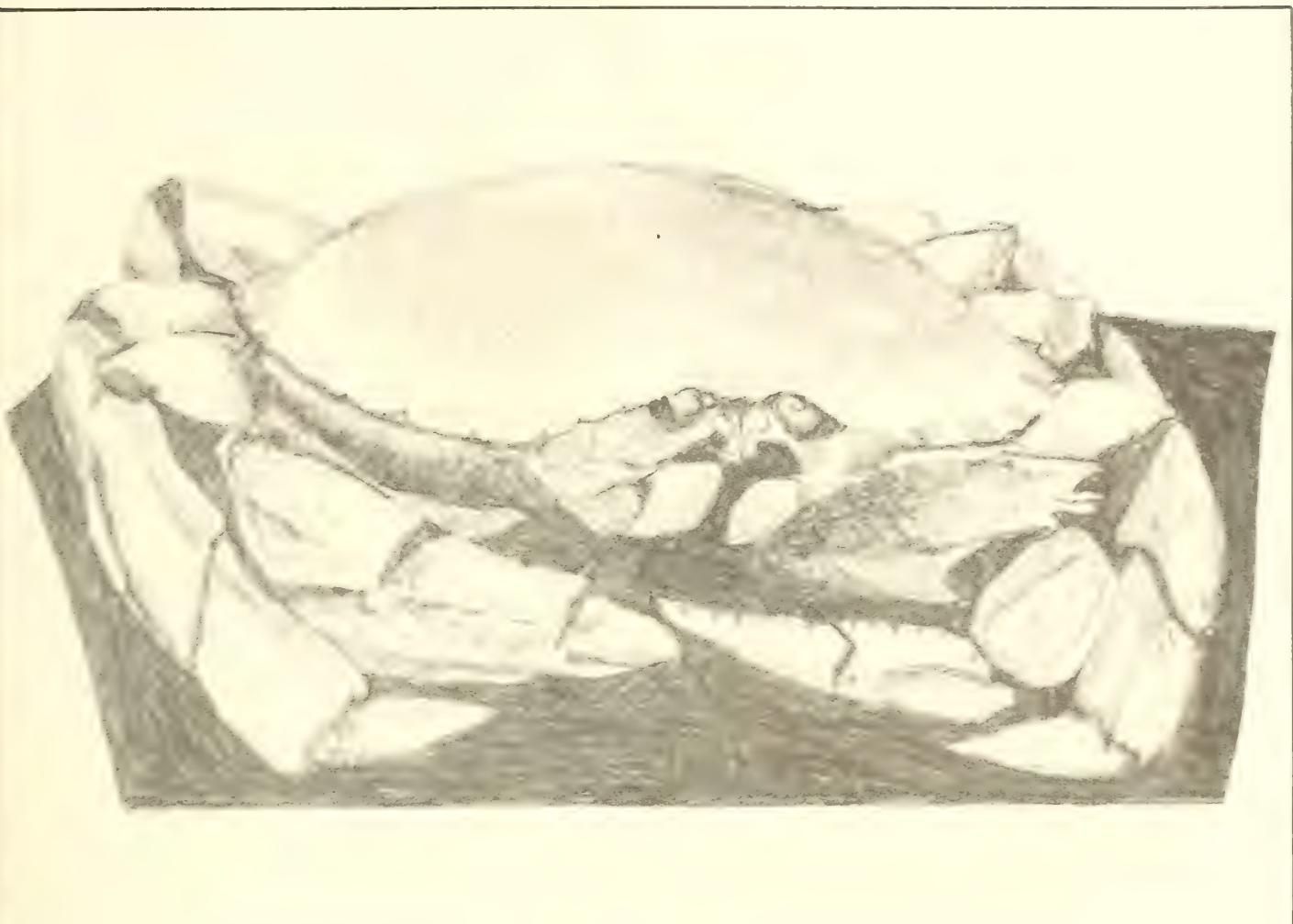


TABLE 10

COMMERCIALLY IMPORTANT INVERTEBRATES OF ALASKA, Occurrence by Ecosystem

		— Marine	— Estuarine	— Riverine	— Lacustrine	— Palustrine	— Hemlock-Spruce	— Spruce-Poplar	— Upland spruce	— Lowland spruce	— Muskeg bog	— High brush	— Moist tundra-mainland	— Wet tundra	— Alpine tundra-mainland	— Moist tundra-Aleutian	— Alpine tundra-Aleutian	— Glaciers and ice
Brown or Golden King Crab <i>Lithodes aquispina</i> (Auth. 6)			X	X														
Short Claw King Crab <i>Paralithodes brevipes</i> (Auth. 4)			X	X														
Red King Crab <i>Paralithodes camtschatica</i> (Auth. 4)			X	X														
Blue King Crab <i>Paralithodes platypus</i> (Auth. 4)			X	X														
Dungeness Crab <i>Cancer magister</i> (Auth. 6)			X	X														
Tanner Crab <i>Chionocoetes bairdi</i> (Auth. 3)			X	X														
Snow Crab <i>Chionocoetes opilio</i> (Auth. 6)			X															
Foraminate Box Crab <i>Lopholithodes foraminatus</i> (Auth. 6)			X															
Mandt's Box Crab <i>Lopholithodes mandtii</i> (Auth. 5, 6)			X															
Hairy or Horse Crab <i>Telmessus cheiragonus</i> (Auth. 4, 6)			X															
Bering Sea Hairy Crab <i>Erimacrus isenbeckii</i> (Auth. 4, 6)			X															
Red Rock Crab <i>Cancer productus</i> (Auth. 4, 6)			X															
Shrimp (Sand Shrimp) <i>Crangon sp.</i> (Auth. 6)			X															

Table 10 – 2

	<i>- Marine</i>	<i>- Estuarine</i>	<i>- Riverine</i>	<i>- Lacustrine</i>	<i>- Palustrine</i>	<i>- Hemlock-Spruce</i>	<i>- Spruce-Poplar</i>	<i>- Upland spruce</i>	<i>- Lowland spruce</i>	<i>- Muskeg-bog</i>	<i>- High brush</i>	<i>- Moist tundra, mainland</i>	<i>- Wet tundra</i>	<i>- Alpine tundra, mainland</i>	<i>- Moist tundra Aleutian</i>	<i>- Alpine tundra Aleutian</i>	<i>- Glaciers and ice</i>
Broken-back Shrimp <i>Heptacarpus sp.</i> (Auth. 3)	X	X															
Side-striped Shrimp <i>Pandalopsis dispar</i> (Auth. 3)	X	X	.														
Longtail Pink Shrimp <i>Pandalus tridens</i> (Auth. 6)	X	X															
Pink Shrimp <i>Pandalus borealis</i> (Auth. 3)	X	X															
Humpy Shrimp <i>Pandalus goniurus</i> (Auth. 3)	X	X															
Spot Shrimp <i>Pandalus platyceros</i> (Auth. 3)	X	X															
Ocean Pink Shrimp <i>Pandalus jordani</i> (Auth. 3)	X	X															
Coon-stripe Shrimp <i>Pandalus hypsinotus</i> (Auth. 3)	X	X															
Dock Shrimp <i>Pandalus danae</i> (Auth. 3)	X	X															
Japanese Abalone <i>Haliotis kamtschatkana</i> (Auth. 5)	X	X															
Nuttall's Cockle <i>Clinocardium nuttallii</i> (Auth. 5)	X	X															
Alaska Surf Clam <i>Spisula alaskana</i> (Auth. 5)	X	X															
Butter Clam <i>Saxidomus giganteus</i> (Auth. 5)	X	X															
Pacific Littleneck <i>Protothaca staminea</i> (Auth. 5)	X	X															
Dall's Razor Clam <i>Siliqua alta</i> (Auth. 1)	X	X															

Table 10 – 3

	– Marine	– Estuarine	– Riverine	– Lacustrine	– Palustrine	– Hemlock-Spruce	– Spruce-Poplar	– Upland spruce	– Lowland spruce	– Muskeg-bog	– High brush	– Moist tundra-mainland	– Wet tundra	– Alpine tundra	– Moist tundra-mainland	– Alpine tundra-Aleutian	– Glaciers and ice
Pacific Razor Clam <i>Siliqua patula</i> (Auth. 5)	X	X															
Weathervane Scallop <i>Pecten caurinus</i> (Auth. 5)	X	X															
Japanese Oyster <i>Crassostrea gigas</i> (Auth. 5)	X	X															
Northwest Neptuna <i>Neptunea lyrata</i> (Auth. 1)	X	X															
Neptuna <i>Neptunea pribiloffensis</i> (Auth. 1)	X	X															
Neptuna <i>Neptunea venosa</i> (Auth. 1)	X	X															
Neptuna <i>Neptunea ventricosa</i> (Auth. 1)	X	X															
Octopus <i>Octopus dofleini</i> (Auth. 3)	X	X															
Octopus <i>Octopus lieoderma</i> (Auth. 3)	X	X															
Red Sea Urchin <i>Strongylocentrotus franciscanus</i> (Auth. 3)	X																
Green Sea Urchin <i>Strongylocentrotus droebachiensis</i> (Auth. 3)	X	X															
Pale Sea Urchin <i>Strongylocentrotus pallidus</i> (Auth. 3)	X	X															
Purple Sea Urchin <i>Strongylocentrotus purpuratus</i> (Auth. 3)	X																
Aleutian Sea Urchin <i>Strongylocentrotus polyacanthus</i> (Auth. 2)	X	X															
Red Sea Cucumber <i>Parastichopus californicus</i> (Auth. 3)	X	X															

AUTHORITIES for Nomenclature:

- 1) Abbott, R. T. *American Seashells*. 2nd Ed. Van Nostrand Reinhold Co., N.Y., 1974.
- 2) Jensen, Margit. "The Strongylocentrotidae (Echinoidea), A Morphologic and Systematic Study." *Sarsia* 57:112-148. 1974.
- 3) Kozloff, Eugene N. *Keys to the Marine Invertebrates of Puget Sound, the San Juan Archipelago, and Adjacent Regions*. University of Washington Press, Seattle, 1974.
- 4) Makarov, V. V. "Fauna of the USSR, Crustacia," Vol. 10, No. 3. *Animura*, Academy of Sciences USSR, 1938, Translated by Israel Program for Scientific Translations by F. D. Por, 1962.
- 5) Morris, Percy A. *Peterson Field Guide Series: A Field Guide to Pacific Coast Shells Including Shells of Hawaii and the Gulf of California*. Houghton-Mifflin, Boston, 1968.
- 6) Rathbun, Mary J. "Decapod Crustaceans of the Northwest Coast of North America." In: *Harriman Alaska Expedition*, Vol. X *Crustacea*. Doubleday, Page, N.Y., 1904.

References for Ecosystem Occurrence:

- 1) Rathbun, Mary J. "Decapod Crustaceans of the Northwest Coast of North America." In: *Harriman Alaska Expedition*, Vol. X *Crustacea*. Doubleday, Page, N.Y., 1904.
- 2) Wing, Bruce, Ph.D., Chief Oceanography Investigations, Auke Bay Fisheries Laboratory, Auke Bay, Alaska. Personal communication, 1979.

BOWHEAD WHALE



ENDANGERED AND THREATENED SPECIES

"Endangered" means a species or subspecies is in imminent danger of extinction in the wild. "Threatened" generally means likely to become endangered unless current trends are reversed. A species is listed only once if all its members are endangered or threatened. By contrast, endangered or threatened subspecies are listed individually in cases where all subspecies are not endangered or threatened. By law, federal agencies are required to improve the status of each endangered species until it can be removed from the list. Compared to the federal list, State endangered lists will often include additional species. Occurrence of a species on a state list is frequently an indication that it will later appear on the federal list.

Certain birds on the Alaskan Endangered Species List are migratory and may be observed passing through states in which they have not been listed as endangered, enroute to a seasonal stay at a remote destination. These include the Arctic peregrine falcon, whose route is from the Arctic tundra to South America, and the Eskimo curlew, whose route is from the far North to South America.

There are seven endangered species of whales off the Atlantic and Pacific coasts of North America, except that one, the Bowhead whale, is found only in northern zones, and another, the Gray whale, only in the Pacific. Alaska is the only western state that might sight them all.

TABLE 11
ALASKAN ENDANGERED SPECIES

Short-tailed Albatross <i>Diomedea albatrus</i>	Fin Whale <i>Balaenoptera physalus</i> (Source 1)	Sperm Whale <i>Physeter catodon</i> (Source 1)
Aleutian Canada Goose <i>Branta canadensis leucopareia</i>	Sei Whale or Rorqual <i>Balaenoptera borealis</i> (Source 1)	Pacific Leatherback Turtle <i>Dermochelys coriacea</i> (Source 1)
Eskimo Curlew <i>Numenius borealis</i>	Blue or Sulphur-bottomed Whale <i>Balaenoptera musculus</i> (Source 1)	
American Peregrine Falcon <i>Falco peregrinus anatum</i> (Source 1)	Hump-back Whale <i>Megaptera novaeangliae</i> (Source 1)	
Arctic Peregrine Falcon <i>Falco peregrinus tundrensis</i> White	Pacific Right Whale <i>Eubalaena sieboldii</i> (Source 1)	
Gray Whale <i>Eschrichtius gibbosus</i> (Source 1)	Bowhead Whale <i>Balaena mysticetus</i> (Source 1)	

Sources: Both references 1 and 2 list the species except where noted.

- 1) "List of Endangered and Threatened Wildlife and Plants." Department of the Interior, Fish and Wildlife Service. In: *Federal Register*. Most recently: Wednesday, January 17, 1979. Part II.
- 2) *State of Alaska's endangered species Act:* AS 16.20.180 through .210.

ACKNOWLEDGEMENT

Many people helped with this publication over the past three years during its numerous revisions. Especially I would like to thank Robert Armstrong, Juneau, Alaska, for allowing use of his manuscript, *A Guide to the Birds of Alaska*. Together we gave up many summer evenings fitting bird species into habitat categories. I also want to thank Dr. Donald McKnight of the Alaska Department of Fish and Game for help with the mammalian lists; Dr. Bruce Wing of the National Marine Fisheries Service for help with the invertebrate and fish lists; Dr. Robert Parker Hodge, Gig Harbor, Washington, for review of the Amphibian and Reptile lists; Dr. Dan Gibson, University of Alaska, for review of the bird lists; Dr. Fred Dean and Steve MacDonald, University of Alaska, for review of the mammals list; and my favorite professor, Dr. James Morrow, now retired from the University of Alaska and living in Port Orford, Oregon, for advice on the fish lists. Also, thanks go to Luann McVey and Josanne Sabourin for assistance in designing the lists and transferring data.

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